2014-1718

United States Court of Appeals
for the Federal Circuit

R+L CARRIERS, INC.,

Plaintiff-Appellant,

v.

QUALCOMM, INC.,

Defendant-Appellee.

Appeal from the United States District Court for the Southern District of Ohio in case nos. 09-MD-2050, 09-CV-0445, Senior Judge Sandra S. Beckwith.

BRIEF FOR PLAINTIFF-APPELLANT

Anthony C. White, Esq.
Philip B. Sineneng, Esq.
THOMPSON HINE LLP
41 South High Street, Suite 1700
Columbus, OH 43215-6101
(614) 469-3200
tony.white@thompsonhine.com
philip.sineneng@thompsonhine.com

Stephen J. Butler, Esq.
THOMPSON HINE LLP
312 Walnut Street, 14th Floor
Cincinnati, OH 45202-4089
(513) 352-6587
steve.butler@thompsonhine.com

Megan D. Dortenzo, Esq.
Arthur P. Licygiewicz, Esq.
THOMPSON HINE LLP
3900 Key Center
127 Public Square
Cleveland, OH 44114-1291
(216) 566-5500
megan.dortenzo@thompsonhine.com
art.licygiewicz@thompsonhine.com

Counsel for Plaintiff-Appellant R+L Carriers, Inc.

CORRECTED ON OCTOBER 20, 2014
ORIGINALLY FILED OCTOBER 14, 2014

CERTIFICATE OF INTEREST

Counsel for the Plaintiff-Appellant R+L Carriers, Inc., Anthony C. White, certifies the following:

1.   The full name of every party or amicus represented by me is:

R+L Carriers, Inc.

2.   The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

N/A

3.   All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None

4.   The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

Anthony C. White, Esq.   Megan D. Dortenzo, Esq.
Philip B. Sineneng, Esq.   Arthur P. Licygiewicz, Esq.
Stephanie M. Chmiel, Esq.   Troy S. Prince, Esq.*
O. Judson Scheaf, III, Esq.*   THOMPSON HINE LLP
THOMPSON HINE LLP   3900 Key Center
41 South High Street, Suite 1700   127 Public Square
Columbus, OH 43215-6101   Cleveland, OH 44114-1291

Stephen J. Butler, Esq.   John W. Ryan, Esq.
THOMPSON HINE LLP   Thomas A. Haas, Esq.
312 Walnut Street, 14th Floor   THOMPSON HINE LLP
Cincinnati, OH 45202-4089   1919 M. Street, N.W., Suite 700
                                        Washington, DC 20036-3537

* indicates that the attorney is no longer affiliated with Thompson Hine LLP.

Dated: October 20, 2014   /s/ Anthony C. White
                                                  Anthony C. White, Esq.
                                                  THOMPSON HINE LLP
                                                  41 South High Street, Suite 1700
                                                  Columbus, OH 43215-6101
                                                  Tony.White@ThompsonHine.com

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

STATEMENT OF RELATED CASES

The parties to this appeal were previously before this Court in the same matter in Case No. 2010-1495. The prior appeal was consolidated with five other appeals from the same underlying multi-district litigation under Lead Case No. 2010-1493. Those appeals were resolved by precedential opinion on June 7, 2012, and all actions were remanded to the United States District Court for the Southern District of Ohio for further proceedings.

The following cases remain pending in the United States District Court for the Southern District of Ohio and may be directly affected by this Court's decision in this appeal: (i) *DriverTech, LLC v. R+L Carriers, Inc.*, Case No. 1:09-cv-00502; (ii) *PeopleNet Communications Corp. v. R+L Carriers, Inc.*, Case No. 1:09-cv-00472; (iii) *R+L Carriers, Inc. v. Intermec Technology Corp.*, Case No. 1:09-cv-532; (iv) *R+L Carriers, Inc. v. Microdea, Inc.*, Case No. 1:09-cv-179; (v) *R+L Carriers, Inc. v. Affiliated Computer Services, Inc.*, Case No. 1:09-cv-818; and (vi) *R+L Carriers, Inc. v. FFE Transportation Services, Inc.*, Case No. 1:12-cv-00473. All of these cases are included in *In re Bill of Lading Transmission and Processing System Patent Litigation*, Case No. 1:09-md-2050 (S.D. Ohio) (the "MDL").

JURISDICTIONAL STATEMENT

Pursuant to 28 U.S.C. § 1338, the trial court had original jurisdiction over this action because it implicates U.S. patent laws and enforcement of U.S. Patent 6,401,078 ("the '078 Patent").

R+L appeals the United States District Court for the Southern District of Ohio's August 12, 2014 Order finding non-infringement of the '078 Patent in favor of Defendant-Appellee Qualcomm, Inc. ("Qualcomm"). R+L timely filed its Notice of Appeal later that same day.

This Court has jurisdiction pursuant to 28 U.S.C. § 1295 because R+L appeals the trial court's Fed. R. Civ. P. 54(b) final appealable order as to Qualcomm involving patent law issues.

STATEMENT OF THE ISSUES

1)   Whether the trial court erred in finding that the claim amendments made to the '078 Patent during re-examination resulted in a substantive change in the scope of Claim 1.

2)   Whether the trial court erred in concluding that adding "advance" to "loading manifests" in Claim 1 of the '078 Patent during re-examination amounted to a substantive change.

STATEMENT OF THE CASE

R+L is a prominent motor-freight carrier headquartered in Wilmington, Ohio seeking to enforce its rights in the '078 Patent. The '078 Patent generally teaches a

process for using a portable document scanner to wirelessly transmit a package's

shipping documentation (*e.g.*, a bill-of-lading) to a remote processing center,

where that information is used to prepare an advance loading manifest that

identifies the package and its ultimate destination, prior to the package being

removed from the original transporting vehicle ("the '078 Patented Process").

On June 25, 2009, R+L brought suit against Qualcomm, a global company

that focuses on mobile technology, alleging that Qualcomm actively induced

infringement of the '078 Patent. (A114)[1] R+L's lawsuit against Qualcomm was

transferred into the MDL proceedings on June 29, 2009.

On July 15, 2010, the trial court dismissed R+L's Amended Complaint

based on its determination that R+L had failed to meet the heightened pleading

standards set forth in *Bell Atlantic v. Twombly*, 550 U.S. 544 (2007). (A850) On

June 11, 2012, this Court reversed-in-part and affirmed-in-part, holding that R+L

had alleged sufficient facts in its Amended Complaint to state a plausible claim of

induced infringement against Qualcomm. (A1194)

Upon remand of this matter to the trial court, the parties exchanged some

written discovery and prepared for claim construction of the '078 Patent. On

January 15, 2013, Qualcomm, along with the other defendants and counterclaim-

---

[1] References to "A__" are to the Joint Appendix to be filed after R+L's Reply Brief
is submitted.

3

defendants in the consolidated actions, served R+L with its Invalidity Contentions, which referenced allegedly invalidating prior art. (A3233) Upon reviewing those Invalidity Contentions, R+L concluded that there might be prior art that raised a substantial question as to the patentability of the '078 Patent.

On June 28, 2013, R+L applied to the U.S. Patent and Trademark Office ("PTO") for *ex parte* re-examination of the '078 Patent, and shortly thereafter sought a stay of the proceedings before the trial court. (A88) Qualcomm successfully opposed the stay, even though R+L's application for re-examination was granted on August 6, 2013. (A90-91) While the case proceeded towards a claim construction hearing, all discovery directed towards infringement was stayed on November 18, 2013. (A90)

The trial court conducted a claim construction hearing and, on December 31, 2013, issued its claim construction ruling. (A2950) On February 26, 2014, the PTO issued its Notice of Intent to Issue a Re-examination Certificate, which R+L promptly filed with the trial court. (A3082) The PTO issued its Re-examination Certificate on March 21, 2014, which amended the language of Claim 1, but stated that all nine claims of the '078 Patent were valid and patentable over the cited prior art. (A3344) The trial court then asked the parties to submit briefs on the impact of the Re-examination Certificate on the scope of the '078 Patent claims, and specifically, whether the amended '078 Patent reflected a substantive change from

4

the original '078 Patent. (A3091) Qualcomm argued that certain amendments made to the '078 Patent on re-examination resulted in a substantive change to the scope of the '078 Patent, thereby rendering it unenforceable prior to March 21, 2014, the date of the Re-examination Certificate. (A3280-81, A3288, A3360, A3361, A3371-72)

The trial court entered an order in response to that briefing on May 19, 2014. (A3812) Even though the specification of the original '078 Patent reflects that those who practice the patent use load planning software to generate loading manifests, the trial court concluded that the addition of the word "advance" to modify "loading manifests" indicated for the first time that the loading manifests contemplated by the patent were to be prepared using load planning software. (A3816-20) The trial court determined that the addition of "advance" was therefore a substantive change to the patent and ruled that there could be no infringement of the '078 Patent prior to the PTO's issuance of the Re-examination Certificate. (A3824)

Following entry of the trial court's order, Qualcomm provided R+L with a sworn declaration that in November 2013 it had sold the division of its company that manufactured and marketed the products that R+L alleges were being used to infringe the '078 Patent. (A3833) Because Qualcomm had not engaged in the alleged acts of inducement to infringe the patent as re-examined following the sale

and after issuance of the March 21, 2014 Re-examination Certificate, the parties

agreed to entry of final judgment in favor of Qualcomm based on the trial court's

May 19, 2014 Order. Judgment was entered on August 12, 2014. (A3841)

R+L filed its Notice of Appeal that same day.   (A3844) R+L seeks a

reversal of the trial court's August 12, 2014 entry granting final judgment in

Qualcomm's favor because the trial court erred as a matter of law in finding in its

May 19, 2014 Order that R+L had narrowed Claim 1 of the '078 Patent by

changing the term "loading manifest" to "advance loading manifest" in the course

of the re-examination proceedings.

STATEMENT OF FACTS

I. THE '078 PATENT STREAMLINES LOGISTICS FOR FREIGHT CARRIERS.

R+L is a less than truckload ("LTL") carrier that collects and consolidates

freight from numerous customers onto a single trailer, and then brings that cargo to

a central hub for sorting and reloading onto other trailers bound for the cargo's

ultimate destination. Efficient coordination of the movement of the cargo is

critical to a carriers' economic success, especially an LTL carrier. If a carrier

knows the ultimate destinations of the in-bound freight ahead of time, then it can

plan to have the necessary resources—dockworkers, drivers, and trailers—standing

by to reload the freight from the inbound trucks to the outbound trucks. Also with

this knowledge, a carrier can hold trucks headed for the destinations of inbound

packages to expedite deliveries and avoid sending out trucks that are not fully loaded.

Recognizing the importance of efficient load planning, R+L developed the '078 Patented Process to anticipate incoming freight and plan outbound deliveries. Without an advance loading manifest–the last step in the '078 Patented Process– carriers would have to wait until the inbound freight reached the terminal and was unloaded and sorted before they could begin planning the loads for the outbound trailers. That is a costly and time-consuming way for a carrier, and especially an LTL carrier, to do business.

II.   R+L UNCOVERS EVIDENCE THAT QUALCOMM ACTIVELY INDUCED INFRINGEMENT OF THE '078 PATENT.

In 2009, R+L learned from Qualcomm's public statements that it was encouraging its customers to practice the '078 Patent without R+L's license or authority. Aware of its duty to police its patent rights, R+L conducted a thorough investigation into Qualcomm's activities, including reviewing websites, news articles, press releases and marketing literature, which confirmed its suspicions that Qualcomm was actively promoting and encouraging its customers to use its products to perform the '078 Patent.

Specifically, Qualcomm had encouraged its trucking customers, such as Cargo Transporters, Inc., to use its In-Cab Scanning Services so drivers can "scan and transmit documents from the cab of their truck directly into the [trucking

company's] back-office system through web services integration[.]" (A426)

Qualcomm promoted its In-Cab Scanning as enabling customers to immediately

scan documents and eliminate the need to use truck stop scanning services. (A429)

Qualcomm also touted In-Cab Scanning as being able to pair with Qualcomm's

Mobile Computing Platforms, which integrate with dispatch systems to optimize

driver efficiency by automating load assignment functions, *i.e.*, determining which

package goes on which vehicle. (A439, A447) Qualcomm also provided

OmniTRACS services, which streamline communications, tracking, and dispatch

by wirelessly transmitting data from inside the truck cab to the back office. (A456,

A458)

This Court has previously found that R+L's allegations in the Amended

Complaint raised a reasonable inference that Qualcomm was indirectly infringing

the '078 Patent. *R+L Carriers, Inc. v. DriverTech LLC (In re Bill of Lading*

Transmission & Processing Sys. Patent Litig.), 681 F.3d 1323, 1346 (Fed. Cir.

2012).

III.   R+L SUBMITS THE '078 PATENT TO THE PTO FOR RE-
EXAMINATION, AND THE '078 PATENT EMERGES WITH
CLARIFYING AMENDMENTS.

In June 2013, while the litigation was still in its nascent stages, R+L

submitted a request for re-examination of the '078 Patent to the PTO to confirm

the patent's validity in light of the following prior art references that Qualcomm

and other defendants in the multi-district litigation had asserted:

- N&M Transfer Co. Prior Art (comprising advertising flyer for Datajack

  from Cellabs, Ricoh PF-1 Operating Instructions and Manual, and N&M

  Transfer Co. Driver Fax Orientation Manual) ("N&M");

- U.S. Patent No. 5,031,223 to Rosenbaum, *et al.* ("Rosenbaum");

- HighwayMaster 10K Report, dated March 1997 ("HighwayMaster");

- "Quiet Revolution in Trucking Services," Purchasing, March 4, 1993

  ("Quiet Revolution");

- Scapinakis and Garrison, "Communication and Positioning Systems in

  the Motor Carrier Industry" (1991-92) ("Scapinakis"): and

- U.S. Patent No. 5,168,444 to Cukor, *et al.* ("Cukor").

In December 2013, the PTO issued a first office action and rejected the

claims of the '078 Patent under 35 U.S.C. § 102(b) as being anticipated by N&M,

and under 35 U.S.C. § 103 as being unpatentable over N&M, HighwayMaster,

Quiet Revolution, Scapinakis and Cukor in view of Rosenbaum. (A2924-46)

In February 2014, R+L's patent counsel had a personal interview with the

PTO Examiners to discuss the prior art references. (A3194) During the interview,

R+L's patent counsel specifically discussed with the Examiners the N&M and

Rosenbaum prior art. (*Id.*) In the discussion of N&M, R+L's counsel pointed out

that N&M only discloses and pertains to a manifest for the current vehicle, and

fails to disclose or suggest a loading manifest for another transporting vehicle.

(*Id*.) After reviewing sections of N&M with R+L's patent counsel, the Examiners

agreed that N&M does not teach or suggest a loading manifest for another

transporting vehicle. (A3088)

As to the Rosenbaum prior art, R+L's patent counsel pointed out that it is

directed to resource allocation and error correction for OCR (optical character

recognition) scans of addresses of postal mail. (A3194) Specifically, Rosenbaum

provides for resource allocation for sorting mail, particularly during very high

demand times. (*Id*.) R+L's patent counsel observed that Rosenbaum fails to teach

or suggest a loading manifest for any vehicle, including another transporting

vehicle. (*Id*.) The Examiners agreed. (A3088, A3194)

From these points of agreement between R+L's patent counsel and the

Examiners, R+L proposed three changes designed to clarify the '078 Patent and

emphasize these already-present distinctions from the prior art. The first

amendment would add the transitional phrase "comprising the steps of" between

the preamble and body of Claim 1, in order to make explicit in Claim 1 what had

always been implicit from the intrinsic evidence. (A3194) The second amendment

would change the phrase "a loading manifest…on another transporting vehicle" to

read "a loading manifest for another transporting vehicle . . . on another

transporting vehicle." (*Id.*) The third amendment would replace the term "a loading manifest" with "a loading manifest document." (*Id.*)[2]

Once R+L proposed these three clarifying amendments, the Examiners and R+L's patent counsel tentatively agreed that "the proposed claim amendment including the phrase 'loading manifest document for another transporting vehicle' would overcome the claim rejection of 35 U.S.C. § 103 involving N&M in combination with Rosenbaum." (*See* A3194) R+L's patent counsel then observed that all of the remaining rejections under 35 U.S.C. § 103 should also be overcome since all of the Examiners' rejections relied on Rosenbaum for the same showing in each combination. (A3194-95) With this fact confirmed, R+L's patent counsel and the Examiners also entered into a tentative agreement that "all of the rejections under 35 U.S.C. § 103 would be overcome by the proposed claim amendment discussed in the Interview." (A3195)

After R+L's patent counsel and the Examiners formed these tentative agreements that all of the Examiners' rejections would be overcome by R+L's proposed clarifying amendments, the Examiners themselves raised the idea of

---

[2] The parties and the trial court appear to be uniform in their position that these R+L proposed amendments did not result in a substantive change to Claim 1. Neither Qualcomm nor any of the other Defendants below asserted that these R+L proposed amendments amounted to a substantive change. (A3273-95, A3327-43, A3355-74, A3774-95) Further, the trial court did not rely on any of these R+L proposed amendments to support its substantive change ruling. (A3812-24)

11

adding the word "advance" to "loading manifest." (*Id*.) By the time the

Examiners proposed this amendment, they had tentatively agreed that each of the

rejections had been overcome by R+L's explanation of the prior art and proposed

amendments. The only explanation offered by the Examiners for their proposal to

add the word "advance" to "loading manifest document" was that it would further

clarify Claim 1 since the specification is replete with references to an "advance

loading manifest." (*See id*.) ("The Examiners and Mr. Oberhaus then discussed

whether the word 'advance' should be added to 'loading manifest' in independent

Claim 1 for <u>further clarity</u>. Examiner Patel noted that the '078 Patent Specification

refers multiple times to 'advance loading manifest'.") (emphasis added). No one,

not the Examiners nor R+L's patent counsel, ever suggested that adding the term

"advance" to "loading manifest document" was necessary to overcome the asserted

prior art or even relevant to it. Given that (1) the Examiners were correct in

observing that the specification contains no less than twenty-two separate

references to the term "advance loading manifest" when describing the loading

manifest generated in Claim 1, and (2) the addition of "advance" to "loading

manifest" did not alter the scope of Claim 1, R+L acquiesced to the Examiners'

request. (A3195)

12

On March 21, 2014, the PTO entered an *Ex Parte* Re-examination

Certificate under 35 U.S.C. § 307 for the '078 Patent with all nine claims found to

be valid and patentable, and Claim 1 amended as follows:

> A method for transferring shipping documentation data for a package from a transporting vehicle to a remote processing center *comprising the steps of*:
>
> placing a package on the transporting vehicle;
>
> using a portable document scanner to scan an image of the documentation data for the package, said image including shipping details of the package;
>
> providing a portable image processor capable of wirelessly transferring the image from the transporting vehicle;
>
> wirelessly sending the image to a remote processing center;
>
> receiving the image at said remote processing center; and
>
> prior to the package being removed from the transporting vehicle, utilizing said documentation data at said remote processing center to prepare [a] *an advance* loading manifest *document for another transporting vehicle* which includes said package for further transport of the package on another transporting vehicle.

(A3346) (deletions in brackets; additions in italics).

IV.   THE TRIAL COURT WRONGLY DETERMINES THAT THE EXAMINERS' SUGGESTED ADDITION OF THE MODIFIER "ADVANCE" TO "LOADING MANIFEST" IS A NARROWING SUBSTANTIVE CHANGE TO THE '078 PATENT.

After the '078 Patent emerged from re-examination, the trial court, *sua*

sponte, asked the parties to brief the impact, if any, of the amendments on R+L's

infringement lawsuit. (A3091) Qualcomm did not assert that any of the

amendments first suggested by R+L during re-examination substantively changed

the scope of Claim 1. Instead, Qualcomm asserted that the Examiners' suggested

addition of "advance" to "loading manifest" narrowed the scope of the '078 Patent

and rendered it unenforceable prior to the date of the Re-examination Certificate.

(A3288) Even though the patent's specification always described "loading

manifest" in the context of being generated by load planning software, the trial

court agreed, ruling that the amendment of "loading manifest" to "advance loading

manifest" narrowed Claim 1 to include only documents that are created by

computer load planning software. (A3816-20) The trial court did not find that any

of the amendments first-suggested by R+L in the re-examination proceedings had

any effect on the scope of the '078 Patent. (*See id*.)

As a result of its ruling that the '078 Patent was narrowed by amendment,

the trial court ruled that Qualcomm and the other defendants could not be liable for

any infringement of the '078 Patent before March 21, 2014, the date it emerged

from re-examination as amended. (A3824) Because Qualcomm had sold the

division of its business that manufactured and promoted the devices being used to

infringe the '078 Patent in November 2013, there were no further issues with

respect to Qualcomm. On August 12, 2014, the trial court entered a final

14

appealable order of judgment in favor of Qualcomm on Count II of the Amended

Complaint. (A3841)

SUMMARY OF THE ARGUMENT

The trial court erred in its conclusion that Claim 1 of the '078 Patent was

substantively changed during the re-examination proceedings before the PTO by

adding "advance" to "loading manifest." However, there is no difference between

the "loading manifest" described in the original patent and the "advance loading

manifest" described in the re-examined patent. Neither Qualcomm nor any of the

other defendants below argued that the intrinsic evidence relied on by the trial

court had any relevance to the question of whether this amendment constitutes a

substantive change. Indeed, Qualcomm and the other defendants below did not

cite any intrinsic evidence that supported this argument.

To the contrary, the intrinsic evidence uniformly establishes that this

amendment was not a substantive change to Claim 1. In twenty-two separate

instances, the specification of the '078 Patent makes clear that "advance loading

manifests" are always generated using load planning software. (A146-52) To

affirm the trial court's ruling that this amendment was a substantive change,

"loading manifests" in the original '078 Patent must be different from "advance

loading manifests" in the amended patent. Specifically, it must be that "loading

manifests" in the original patent could be generated without the use of load

planning software. Yet, the only reference to "loading manifests" in the specification makes clear that they are generated using load planning software, exactly like "advance loading manifests." '078 Patent at col. 13, ll. 2-5 (A152). Nothing in the specification, prosecution history, or the claims establishes any difference between "advance loading manifests" and "loading manifests" as used in the '078 Patent.

That is precisely the conclusion that Defendant Pitt Ohio Express, Inc. ("Pitt Ohio") came to when it considered the proper construction of "loading manifest" as used in original Claim 1. In its claim construction briefs submitted to the trial court, well before the Patent Examiners ever suggested this clarifying amendment, Pitt Ohio concluded that "loading manifests" are "[d]ocuments generated by load planning software[.]" (A922) The use of load planning software has always been required to generate a loading manifest or advance loading manifest in the '078 Patented Process.

The trial court did not cite to any intrinsic evidence that suggests that "loading manifests" are in fact something different from "advance loading manifests." (A3815-20) The trial court concluded that the term "utilizing" in Claim 1 puts no express limitation on *how* a person practicing the method could utilize documentation data to prepare a loading manifest. (A3816-17) From this,

16

the trial court concluded that a substantive change occurred because an "advance loading manifest" can only be prepared using load planning software. (A3817)

The trial court's analysis on this point was improperly narrow. The trial court should have examined the intrinsic evidence to determine how the specification teaches a POSITA to utilize the documentation data to generate a loading manifest, but it did not do so. The specification makes clear that both "loading manifests" and "advance loading manifests" are generated by utilizing documentation data in only one way—in conjunction with load planning software. Nothing in the intrinsic evidence teaches a different method of utilizing documentation data to generate a loading manifest.

The trial court next relied on the fact that its own prior claim construction ruling did not impose any limitation on how a loading manifest is generated in the '078 Patented Process to conclude that there is no requirement to use load planning software. (*Id.*) But, the only reason the trial court did not construe how a loading manifest is generated is because no party considered that aspect of a loading manifest to require construction. The trial court's claim construction ruling is simply silent on the question of how one generates a loading manifest. (A2950-71) Instead of conducting claim construction to answer this question, the trial court simply assumed the broadest possible construction of "loading manifest," without

17

any evidence or analysis to support that assumption. (*See* A3817) That decision was erroneous both on its face and in light of the intrinsic evidence.

Nothing in the trial court's citation to the specification establishes that the Patent Examiners' request to add "advance" to "loading manifest" resulted in a substantive change to Claim 1. The trial court first relied on the specification's references to a load planner as evidence that a person can manually (*i.e.*, by hand, entirely without the use of load planning software) prepare a loading manifest. (A3817-18) However, no part of the specification describes a load planner preparing a loading manifest in the absence of load planning software. The trial court merely relied on the existence of a load planner, presuming that if a person called a "load planner" is involved in the '078 Patented Process, she must be generating a loading manifest by hand (*i.e.*, without using load planning software). (*See* 3817-18)

This conclusion ignores the nature of the invention that is described by the '078 Patent. There is more to load planning than generating a loading manifest from documentation data. A loading manifest does not organize and rally dockworkers and equipment to handle freight surges. A loading manifest does not re-assign trucks, trailers, and drivers to different routes to adjust to volume changes. These are functions performed by a load planner. None of these functions performed by the load planner require the generation of a loading

18

manifest by the load planner without using load planning software. Thus, the fact that a human load planner might be involved in the load planning process does not mean that the person is preparing a loading manifest by hand.

And, the trial court's conclusion runs directly counter to the teachings of the specification. The specification makes clear in numerous areas that one way a loading manifest can be generated is by manually keying load planning information into load planning software. '078 Patent at col. 9, ll. 43-47, 54-60 (A150); *see also id.* at col. 6, ll. 7-14 (A148); col. 10, ll. 40-44, 50-52 (A150); col. 11, ll. 1-5 (A151). The person performing this task can certainly be the load planner, who is identified in the specification as being the recipient on some occasions of load planning information. (*Id.*) The mere fact that a load planner exists has no bearing on whether load planning software is used to create a loading manifest.

The trial court next concluded that several portions of the specification indicate that the use of load planning software is "optional." (A3818-19) When properly viewed in their context, however, none of the trial court's citations to the specification support its finding of a substantive change. The context of each of the references relied on by the trial court shows that they all refer to the alternate methods for extracting load planning information from the documentation data, not alternate methods for generating loading manifests. Those alternate extraction

19

methods do not modify or alter the requirement found throughout the specification that, no matter how one extracts load planning information from the documentation data, the resulting loading manifest must be generated using load planning software.

The trial court also erred as a matter of law in its conclusion that N&M supported its determination that there was a substantive change during re-examination. (A3819) The PTO determined that because N&M does not teach or suggest a loading manifest for another transporting vehicle for the package, adding "for another transporting vehicle" to Claim 1 would eliminate all rejections based on N&M. (A3194) Nothing in the record suggests that N&M was in any way relevant to the Patent Examiners' suggestion that "advance" be added to "loading manifest."

Despite this, the trial court concluded that adding "advance" to "loading manifest" was necessary to avoid N&M, and that this fact established that a substantive change had occurred. (A3819-20) As stated above, the facts establish that the Patent Examiners and R+L's patent counsel tentatively agreed that the PTO's rejections based on N&M had been resolved prior to any suggestion that "advance" should be added to "loading manifest." (A3194-95) Because there are no facts to support the trial court's conclusion otherwise, it was error for the trial court to rely on N&M to establish a substantive change to Claim 1.

ARGUMENT

I.   STANDARD OF REVIEW

The issue of whether patent claims are broadened or narrowed during re-examination is ultimately one of claim construction, and is thus reviewed *de novo*. *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1344 (Fed. Cir. 2002). Therefore, this Court must determine, without deference to the trial court, whether the '078 Patent was narrowed by adding the word "advance" to the term "loading manifest" in Claim 1. R+L respectfully asserts that it was not.

II.   THE AMENDMENT OF "LOADING MANIFEST" TO "ADVANCE LOADING MANIFEST" WAS NOT A SUBSTANTIVE CHANGE IN THE CLAIM SCOPE.

A.   UNDER 35 U.S.C. §§ 252 AND 307(b) AND APPLICABLE CASE LAW, RE-EXAMINED CLAIMS NEED NOT BE VERBATIM TO THE ORIGINAL CLAIMS TO BE CONSIDERED "SUBSTANTIALLY IDENTICAL".

35 U.S.C. § 252 provides:

> Every reissued patent shall have the same effect and operation in law, on the trial of actions for causes thereafter arising, as if the same had been originally granted in such amended form, but in so far as the claims of the original and reissued patents are substantially identical, such surrender shall not affect any action then pending nor abate any cause of action then existing, and the reissued patent, to the extent that its claims are substantially identical with the original patent, shall constitute a continuation thereof and have effect continuously from the date of the original patent.

(Emphasis added).   35 U.S.C. § 307(b) adds that "[a]ny proposed amended or new claim determined to be patentable and incorporated into a patent following a

21

reexamination proceeding will have the same effect as that specified in [35 U.S.C. § 252]."

This Court has uniformly held that "substantially identical" under Section 252 does not mean "verbatim." Rather, "substantially identical" simply means "without substantive change." *See*, *e.g.*, *Slimfold Mfg. Co., Inc. v. Kinkead Indus., Inc.*, 810 F.2d 1113, 1115 (Fed. Cir. 1987); *Fortel Corp. v. Phone-Mate, Inc.*, 825 F.2d 1577, 1579 (Fed. Cir. 1987); *Kaufman Co., Inc. v. Lantech, Inc.*, 807 F.2d 970, 973 (Fed. Cir. 1986); *Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 827-28 (Fed. Cir. 1984) (holding "[i]t is clear, though, that 'identical' means, at most, 'without substantive change.'"). A claim has undergone a "substantive change" when it has been modified to the point that its scope is either narrower or broader than the original claim. *See Predicate Logic, Inc. v. Distributive Software, Inc.*, 544 F.3d 1298, 1304-05 (Fed. Cir. 2008); *Kaufman*, 807 F.2d at 977; *Seattle Box*, 731 F.2d at 827-28.

Importantly, "[a]n amendment that clarifies the text of the claim or makes it more definite without affecting its scope is generally viewed as identical." *Predicate Logic*, 544 F.3d at 1305 (quoting *Bloom Eng'g Co., Inc. v. N. Am. Mfg. Co., Inc.*, 129 F.3d 1247, 1250 (Fed. Cir. 1997)); *Tennant Co. v. Hako Minuteman, Inc.*, 878 F.2d 1413, 1417 (Fed. Cir. 1989).

For the reasons set forth below, the addition of "advance" to "loading manifest" in Claim 1 for "further clarity" was not a substantive change.

B.   THE INTRINSIC EVIDENCE AND LITIGATION HISTORY ESTABLISH THAT LOADING MANIFESTS WERE GENERATED USING LOAD PLANNING SOFTWARE UNDER THE ORIGINAL CLAIM, JUST LIKE ADVANCE LOADING MANIFESTS UNDER THE AMENDED CLAIM.

To determine whether a substantive change was made to amended Claim 1, the Court must evaluate "the written description, the prosecution history and the language of the respective claims." *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1348 (Fed. Cir. 1998). All of the intrinsic evidence establishes that no substantive change was made to Claim 1 during the re-examination proceedings.

As the Examiners observed during re-examination, the specification of the '078 Patent is replete with references to an "advance loading manifest" generated at the conclusion of the '078 Patented Process. (A3195) On twenty-two different occasions, the specification identifies an advance loading manifest that is generated when the '078 Patented Process is practiced. (A146-52) And, the specification clearly and repeatedly teaches that these advance loading manifests are always prepared using load planning software:

- "A remote processor receives the documentation, stores the documentation and feeds the documentation to a **load planning software** for generation of **advance loading manifests**[.]" *See* '078 Patent at Abstract. (A137);

23

- "**Load planning software**, while reducing the time expended in planning shipments, is unable **by itself** to reduce the inefficiency caused by partial loads that could have been full loads due to unscheduled freight[.]" *Id.* at col. 2, ll. 23-26. (A146);

- "A second method of extracting the load planning and billing information would be for **a data entry clerk** to view either a paper or electronic copy of the electronic bill of lading and **manually enter the appropriate data into a computer system for load planning**, billing, and accounting." *Id.* at col. 6, ll. 7-14. (A148);

- "[T]he load **planning information extracted** could be **transmitted or input into a load planning software package** that could automatically build a shipping and loading plan to minimize partial loads and to keep the shipments on time. An additional value of having the load planning and billing information automatically extracted from the electronic bill of lading is expected that fewer errors in load planning and billing would be made." *Id.* at col. 6, ll. 19-27. (A148);

- "Thereafter, load plans for a destination, which may include interim and final destinations for a package, can be dynamically preformatted and manipulated **by using a computing device to request from the remote processing center's computing device an advance loading manifest**." *Id.* at col. 7, ll. 44-48. (A149);

- "**Advanced loading manifests**, are documents generated by the **load planning software** discussed above." *Id.* at col. 7, ll. 48-50. (A149);

- "Since, **the load planning software** is receiving documentation regarding the packages dynamically throughout delivery day, whenever the **load planning software** is requested to generate an **advance loading manifest**, the loading efficiency of the trucks is fully maximized[.]" *Id.* at col. 7, ll. 54-58. (A149);

- "When an **advance loading manifest** is requested, the remote processing center's computing device, **utilizing a software logic**, will programmatically request an extract (step 180) of all documentation relevant to generating an **advance loading manifest** for a requesting destination." *Id.* at col 7, l. 66-col. 8, l. 3. (A149);

24

- "[T]he relevant information contained in these sets of documentation such as package weight, package dimension, package destination, package delivery requirements, package current location, etc., are fed to the **load planning software** to produce one or more **advanced loading manifests**." *Id.* at col. 8, ll. 5-10. (A149);

- "[T]he loading information contained in the documentation may be electronically transmitted to another remote location so that the image of the documentation may be **manually keyed** into an electronic text format **for use in load planning software**[.]" *Id*. at col. 9, ll. 43-47. (A150);

- "Alternatively, image data which is well fielded or structured may have the loading data programmatically extracted out of the image in step 370 and then inputted to a **load planning software** for generation of an **advanced loading manifest**[.]" *Id.* at col. 9, ll. 61-65. (A150);

- "Once the loading information from these images are appropriately extracted or manually keyed from these images, the information is passed to a **load planning software package** for generation of an **advanced loading manifest**." *Id.* at col. 10, ll. 40-44. (A150);

- "Improved image quality will permit more accurate **automatic processing and/or manual keying** of the information included on the image." *Id*. at col. 10, ll. 50-52. (A150);

- "This electronic text could then be programmatically inputted to a **load planning software** for generating **advance loading manifests**." *Id.* at col. 10, ll. 55-57. (A150);

- "**[A]utomation** reduces the amount of personnel required to process loading documentation, **reduces errors associated with manual processing**, and substantially **increases the efficiency of generating advance loading manifests**." *Id*. at col. 11, ll. 1-5. (A151);

- "Whenever a request is made of the remote processor for an **advance loading manifest**, the request will route to **load planning software** where an **advance loading manifest** is produced for further electronic transmission or hardcopy output." *Id.* at col. 12, ll. 35-39. (A151); and

25

- "The extracted load planning data is fed to a **load planning software** causing an **advance loading manifest** to be generated in block 820." *Id.* at col. 13, ll. 11-13. (A152).

(Emphasis added). Someone reading the specification of the '078 Patent would have to understand that the '078 Patented Process ends with the use of load planning software to generate an advance loading manifest.

The premise of the trial court's decision is that, as the terms are used in the '078 Patent, a "loading manifest" is different from an "advance loading manifest." But the specification teaches that there is no difference between an "advance loading manifest" and a "loading manifest." There is only one instance where the specification uses the term "loading manifest" without including the word "advance." That reference makes clear that "loading manifests" are no different from "advance loading manifests" described throughout the specification since they are also generated using load planning software:

> The remote facility receives the ETA in 860 and makes a determination at some point to request a loading manifest 850 *from the remote processor* via the communications layer 780.

Id. at col. 13, ll. 2-5 (emphasis added). (A152) Of course, for a computer processor to operate as a computer processor, it must be given instructions via software. Software that instructs a computer processor to generate a loading manifest is, by definition, load planning software. Therefore, the specification makes clear that the "loading manifest" described in original Claim 1 is generated

26

using load planning software, exactly like the "advance loading manifest"

described in the amendment. There is no difference, let alone a substantive one, in

the scope of these terms. The specification teaches that a "loading manifest" and

an "advance loading manifest," as used in the '078 Patent, are synonymous.

Nothing in the prosecution history of the '078 Patent alters that conclusion.

There is no definition of either "advance loading manifest" or "loading manifest"

in the prosecution history of the '078 Patent indicating that the scope of an

"advance loading manifest" is somehow different from a "loading manifest."[3]

This intrinsic evidence leads to the conclusion that a "loading manifest," just

like an "advance loading manifest," is generated using load planning software.

Indeed, that is the exact conclusion that Pitt Ohio came to in this case, long before

the Examiners suggested the addition of "advance" to modify "loading manifest"

during the re-examination proceedings.

---

[3] The prosecution history of U.S. Patent 11/950,529 (the "'529 Application"), an application claiming priority to the '078 Patent, provides further confirmation that loading manifests were always to have been generated by load planning software.

> As noted in the present Specification, **advance loading manifests are documents generated by load planning software. The load planning software** utilizes the extracted packing data and dynamically calculates and then transmits the **advance loading manifest** to a remote facility.

(Emphasis added). (A3306) *See also* '078 Patent at Specification, col. 7, ll. 48-58. (A149)

R+L also brought suit against Pitt Ohio for alleged direct infringement. That case was joined to the MDL proceedings on May 6, 2010. During the course of the Pitt Ohio case, the parties submitted claim construction briefs to the trial court. (A79, A80) One of the terms submitted by the parties for construction was "loading manifest" as used in original Claim 1. (A922) After reviewing the intrinsic evidence, Pitt Ohio concluded that "loading manifest," as used in original Claim 1, meant the following:

> Documents generated by load planning software that provide instructions to workers at a destination, informing the workers in advance that a particular package or item will need to be removed from a first and placed on a second truck for further shipment at a particular time to a particular destination.

(Emphasis added). (A922) Pitt Ohio's proposed construction confirms what the intrinsic evidence reveals—a "loading manifest," just like an "advance loading manifest," has always been generated in the '078 Patented Process using load planning software.

Significantly, neither Qualcomm nor any other defendant cited any intrinsic evidence to the trial court to support their assertion that original Claim 1 had been substantively changed by adding "advance" to "loading manifest." Instead, Qualcomm and the other defendants stated, with no support, that the loading manifest in original Claim 1 "could be generated by a human without the use of load planning software." (A3293) Neither Qualcomm nor the other defendants

28

offered the trial court <u>any</u> intrinsic evidence to support that construction of the term "loading manifest."

From all of this, R+L respectfully asserts that the trial court should have concluded that R+L did not make a substantive change to Claim 1 in the re-examination proceedings. When the trial court came to the opposite conclusion, it erred as a matter of law.

III.   THE TRIAL COURT'S DETERMINATION THAT A SUBSTANTIVE CHANGE WAS MADE TO THE '078 PATENT WAS ERROR.

The trial court identified several aspects of the intrinsic evidence which it used to support its ultimate conclusion that the addition of "advance" to "loading manifest" substantively changed Claim 1. (A3816-20) Below, R+L analyzes each citation offered by the trial court, and shows why the trial court was incorrect in its conclusion.

It is important to note at the outset that neither Qualcomm nor any of the other defendants in the proceedings below relied on any of the trial court's cited intrinsic evidence in support of their argument that the amendment during the re-examination proceeding narrowed original Claim 1. Seven sophisticated defendants, represented by five prestigious law firms, and at least twelve experienced lawyers all looked at the portions of the intrinsic evidence the trial court relied on and apparently concluded that this evidence was not worth mentioning in their briefs because it did not even arguably support the conclusion

29

that original Claim 1 was narrowed by adding "advance" to "loading manifest."

An examination of the portions of the intrinsic evidence cited by the trial court

reveals that Qualcomm and the other defendants were correct in their initial

assessments below.

A.   **THERE IS NO SUPPORT FOR THE CONCLUSION THAT A "LOADING MANIFEST" UNDER ORIGINAL CLAIM 1 COULD BE PREPARED "MANUALLY."**

For the trial court's decision to be correct, the intrinsic evidence must

establish that while an "advance loading manifest" is generated using load

planning software, a "loading manifest" is something different and can be

generated under the '078 Patented Process without using load planning software.

The trial court expressed this concept by using the word "manually," but did not

provide any definition of the term "manually" in the course of its decision.

(A3816-20) Presumably, the trial court meant that a "manually" prepared "loading

manifest" is one that is prepared without any use of load planning software at any

point in the process, *i.e.*, entirely by hand. Thus, to find as the trial court did, there

must be some intrinsic evidence that R+L captured in its '078 Patent a "loading

manifest" generated without the use of any "load planning software" in any aspect

of the process. However, there is no such evidence.

1.   The term "utilizing" in Claim 1 does not establish a substantive change after amendment.

The trial court first relied on "the plain language of original Claim 1" which, according to the trial court, "puts no limitation on the means by which a person practicing the method can prepare a loading manifest." (A3816-17) The trial court came to this ultimate conclusion based on the fact that original Claim 1 only required a person practicing the method to generate a loading manifest by "utilizing" the documentation data. (*See id.*) This claim language, the trial court found, placed no restrictions on how the documentation data can be utilized, meaning it could be utilized under original Claim 1 to "manually" generate a "loading manifest." (A3817)

The trial court's evaluation of Claim 1 proves nothing of use. The fact that original Claim 1 employs the term "utilizing" in describing what one does with the documentation data to generate a loading manifest does not, by itself, answer the question of how that data is in fact utilized. To answer that question, we must examine what the intrinsic evidence reveals about the nature of the loading manifest to be generated once the documentation data is utilized.

Hypothetically, if the intrinsic evidence was entirely silent on the issue of how documentation data is utilized to create a loading manifest, then perhaps the trial court's observations would have relevance to this analysis. But the intrinsic evidence is not silent on that issue. Here, the specification is replete with

31

references to "advance loading manifests" generated by load planning software

(*see supra* at pp. 23-26), and the only reference to a "loading manifest" makes

clear that it too is generated by load planning software. '078 Patent at col. 13, ll. 2-

5. (A152) In each of these instances, the documentation data is <u>only</u> utilized to

create a loading manifest using load planning software, which necessarily excludes

the teaching that a loading manifest is generated "manually." Unless there is some

portion of the intrinsic evidence that teaches that "utilizing" documentation data to

create a loading manifest includes utilizing it without load planning software, the

simple fact that Claim 1 uses the word "utilizing" is irrelevant to the analysis. The

abstract idea of what "utilizing" could mean, divorced from what it does mean as

revealed by the intrinsic evidence, is of no moment.

> **2.   Because the trial court did not address how a "loading manifest" is generated, its claim construction decision is irrelevant to that issue.**

The trial court next relied on the fact that its own construction of original

Claim 1 "did not impose any limitations on how a person practicing the patent

prepares the loading manifest." (A3817) But there is a simple reason why the trial

court did not address how the loading manifest was to be generated in its claim

construction—no party suggested that the claim language on how a loading

manifest was to be generated was unclear to the point that it required construction.

The trial court did not determine in its claim construction ruling, as it would have

had to for this rationale to support the substantive change ruling, that the intrinsic

evidence imposed no limitation on how a loading manifest is generated. (*See*

generally A2950-71) The trial court did not determine in its claim construction

ruling that a loading manifest can be generated without using load planning

software. (*See id*.) If it had, for the reasons explained herein, its determination

would have been erroneous as a matter of law. Thus, the trial court's claim

construction ruling provides no support for its ultimate determination of a

substantive change.

> ### 3. The specification does not establish that a substantive change occurred to Claim 1.

The trial court next concluded that because the specification, in its view,

disclosed and taught "preparing loading manifests manually," the amendment to

Claim 1 was a substantive change. (A3820) For this conclusion, the trial court

relied on several portions of the specification which it determined referred to

manually preparing loading manifests. (A3817-19) None in fact do.

> ### a. The trial court's reliance on the specification's reference to a "load planner" was misplaced.

The trial court first relied on a handful of instances in which the

specification refers to a load planner being involved in the '078 Patented Process.

(A3817-18) From this, the trial court concluded that a POSITA "would understand

that a 'load planner,' particularly when that term is consistently juxtaposed with

terms such as 'load planning software package,' is a person who manually

prepared the loading manifest." (A3818) The trial court was incorrect in this

conclusion.

There is no reference in the specification to a load planner preparing a

loading manifest without the use of load planning software. (*See generally* A146-

52) Instead, the trial court seemed to rely upon the mere existence of a load

planner as evidence of a manually prepared loading manifest, deploying the

assumption that if a load planner is involved, she must be involved to prepare the

loading manifest, which could hypothetically be done manually since a person is

now in the process.

At its core, the trial court's analysis contains unsupported, conclusory leaps

that rely upon a misunderstanding of the invention and the business within which it

is used. There is more to load planning than generating a loading manifest. While

the loading manifest certainly directs where freight is to be taken once it is

removed from the truck bringing it to the terminal, it does not gather dockworkers

or equipment to perform those tasks. Nor does a loading manifest coordinate how

many trucks or trailers are required to carry the freight to a particular destination,

or adjust other routes, or adjust driver, tractor, and trailer assignments to ensure all

freight is delivered to its next destination. All of those functions are performed by

a load planner, a person who takes the information contained in the loading

34

manifests and makes necessary adjustments to the freight delivery process. The

mere fact that the specification discusses the involvement of a load planner does

not, by itself, indicate that the loading manifests in original Claim 1 can be

prepared by the load planner without the use of load planning software. To

understand what the specification teaches about the load planner's role, the Court

must look beyond the simple reference to a load planner, and determine whether

there is any difference between a loading manifest that is generated when a load

planner is involved and one that is generated when no load planner is involved.

It is clear from the specification that there is no such difference, as there is

no teaching that a loading manifest is anything different when a load planner is

involved, or that a load planner prepares loading manifests manually. For

example, there are several references in the specification to "the documentation

[being] manually keyed into an electronic text format for use in load planning

software[.]" '078 Patent at col. 9, ll. 43-47, 54-60. (A150) *See also* col. 6, ll. 7-14

(A148); col. 10, ll. 40-44, 50-52 (A150); col. 11, ll. 1-5 (A151). The person

manually keying load planning information into load planning software

undoubtedly can be the load planner. (*See id.*)

Indeed, the specification teaches on numerous occasions that there are two

ways to extract load planning information from the documentation data: (1)

automatically via some software that recognizes load planning information without

35

direction from the load planner (*see e.g.*, '078 Patent at Abstract (A137); *see also*, col. 6, ll. 19-27 (A148); col. 7, l. 66 – col. 8, l. 3 (A149); col. 8, ll. 5-10 (A149); col. 9, ll. 61-65 (A150); col. 10, ll. 50-52, 55-57 (A150); col. 11, ll. 1-5 (A151); col. 13, ll. 11-13 (A152)), and (2) manually via a load planner entering the load planning information into the load planning software. *See* '078 Patent at col. 6, ll. 7-14 (A148); col. 9 ll. 43-47, 54-60 (A150); col. 10, ll. 40-44, 50-52 (A150); col. 11, ll. 1-5 (A151). But under either taught method, the loading manifest itself is ultimately generated by load planning software, entirely consistent with every reference in the specification to "advance loading manifest" and "loading manifest." Contrary to the trial court's conclusion, the mere fact that the specification teaches both a load planner manually keying load planning information into load planning software and software that automatically performs that function, does nothing to prove a narrowing of original Claim 1.

b. The trial court's suggestion that "load planning software" is optional misconstrues the specification.

The trial court next relied on certain portions of the specification that it believed indicated that "use of load planning software to prepare the loading manifest is optional." (A3818-19) Each of the trial court's citations is addressed in turn below.

i.   **"If a computerized load planning system was not utilized, a paper copy of the electronic bill of lading would be printed and given to the load planner." Col. 6, ll. 12-15. (A148)**

Nothing about this passage in the specification makes the use of load planning software to generate the loading manifest optional. As the context of this statement makes clear, it is merely a reference to one of the alternate methods of extracting load planning information from the documentation data. It does not address how the loading manifest is to be generated.

The paragraph in which this statement appears is the *second paragraph* on the subject being discussed at this portion of the specification, specifically the different methods taught on how to remove load planning information from the documentation data. *Id.* at col. 6, ll. 7-14. (A148) The first paragraph starts at column 5, line 57 with the statement "[o]ne method of extracting load planning and billing information would be…". (A148) It goes on to describe various automated ways to extract load planning and billing information, including using OCR technology to digitize load planning information and sending it to the load planner or displaying it at the load planner's terminal, or sending the load planning information directly to advanced load planning software that can perform the load consolidation and planning automatically. (A148)

After this discussion comes the paragraph containing the passage cited by the trial court. That paragraph begins at column 6, line 7, and the sentence

37

immediately before the one relied upon by the trial court starts with the statement

"[a] *second method of extracting the load planning and billing information* would

be…". (Emphasis added). (A148) Thus, it is clear that this paragraph, including

the sentence relied upon by the trial court, is a continuation of the discussion from

the previous paragraph wherein the use of OCR technology to automate the

extraction of load planning information from the documentation data was

addressed. Indeed, the entire paragraph from which the trial court drew its citation

reads as follows:

> A second method of extracting the load planning and billing information
> would be for a data entry clerk to view either a paper or electronic copy of
> the electronic bill of lading and manually enter the appropriate data into a
> computer system for load planning, billing, and accounting. If a
> computerized load planning system was not utilized, a paper copy of the
> electronic bill of lading would be printed and given to the load planner.

Id. at col. 6, ll. 7-14. (A148) It is clear that the subject of the entire paragraph,

including the reference relied upon by the trial court, is an alternate method for

extracting load planning information from the documentation data. The previous

paragraph addressed various automated ways to extract load planning information.

See id. at col. 5, l. 57 – col. 6, l. 6. (A148) The paragraph containing the sentence

relied upon by the trial court provides a discussion of manual (*i.e.*, non-automated)

ways to extract this information. *See id*. at col. 6, ll. 7-14. (A148) Whether load

planning software is used to generate the loading manifest once the load planning

information is extracted is not the subject of the sentence relied upon by the trial court.

That fact seems obvious from the sentence immediately preceding the one relied upon by the trial court. In it, the specification teaches that once the load planning information is extracted manually from the documentation data, it is entered "into a computer system for load planning, billing, and accounting." *Id*. at col. 6, ll. 7-11 (emphasis added). (A148) A computer system for load planning necessarily includes load planning software. Thus, the sentence immediately before the trial court's citation makes clear that the manual extraction of load planning information being discussed does not alter the requirement that load planning software is used to generate a loading manifest.

And, when analyzed in the context of this invention, the citation relied upon by the trial court does not support the trial court's conclusion. That passage states that in the context of extracting load planning information from the documentation data, if a computerized system is not used, "a paper copy of the electronic bill of lading would be printed and given to the load planner." *Id*. at col. 6, ll. 11-14. (A148) At most, this statement instructs a POSITA to give a paper copy of the bill-of-lading to the load planner. It does not address what the load planner is to do next with the bill-of-lading. Nothing about this statement tells us that the load planner is to take this individual bill-of-lading and create a loading manifest

39

manually, *i.e.*, without the use of load planning software of any kind. To reach that

conclusion, the Court would have to first ignore numerous references in the

specification to manually keying load planning information from the bill-of-lading

into load planning software, and then make the leap that merely giving a paper bill-

of-lading to a load planner describes the preparation of a loading manifest without

load planning software. This portion of the specification does not evidence a

substantive change in Claim 1.

> **ii.   "Additionally, the load planning information
> extracted could be transmitted or input into a
> load planning software package that could
> automatically build a shipping and loading plan
> to minimize partial loads and keep the
> shipments on time." Col. 6, ll. 19-23. (A148)**

Nor does this portion of the specification establish that the use of load

planning software to generate a loading manifest is optional. The trial court relied

on the words "could be" to conclude that the use of the load planning software

described in the sentence is optional, but that conclusion again ignores the context

of the portion of the specification in which the language appears. (A3818-19)

The sentence the trial court relied on is in the paragraph that immediately

follows the paragraphs cited above ('078 Patent at col. 5, l. 57 and col. 6, l. 7

(A148)) that discuss the various methods of extracting load planning information

from the documentation data. One of the extraction methods discussed in these

immediately preceding paragraphs was the automatic extraction of load planning

information from the electronic bill-of-lading and its direct transmission or input

into the load planning software. (*See id.*) The sentence relied on by the trial court

is simply an extension of that discussion. It refers only to this alternate method of

extracting and inputting load planning information into load planning software,

specifically teaching that such an automatic process could be used instead of a

manual process. *Id.* at col. 6, ll. 19-23. (A148)

That fact is clear by examining the sentence that immediately follows this

one. The next sentence of the specification states:

> An additional value of having the load planning and billing information
> <u>automatically extracted from the electronic bill of lading</u> is expected that
> fewer errors in load planning and billing would be made.

Id. at col. 6, ll. 23-27. (A148) This sentence is clearly phrased as a continuation of

the discussion found in the preceding sentence, which is the sentence relied upon

by the trial court. And, it is also clear that the subject of both of these portions of

the specification is the automatic extraction and use of load planning information

in conjunction with load planning software. *See id.* at col. 6, ll. 19-27. (A148)

These sentences teach that such an automated system "could be" used instead of a

system that requires load planning information to be manually keyed into the load

planning software. This does not establish a substantive change in Claim 1.

> iii.   **"In practice, this system can range from a fully automatic, electronic, paper less system to one which relies on paper and uses the system merely as a transmission device." Col. 6, ll. 27-30. (A148)**

This is the last citation relied upon by the trial court, and it too fails to support the conclusion that the use of load planning software is optional. The trial court emphasized the phrase "to one which relies on paper and uses the system merely as a transmission device" as the basis for its holding. (A3819) For various reasons, this conclusion is error.

This sentence is the last sentence of the paragraph starting at Column 6, line 15, the same paragraph in which the citation discussed *supra*, Section II(A)(3)(b)(ii), is found. Thus, as is apparent from the preceding paragraphs and other sentences in this paragraph, the context of this sentence is a discussion of the various methods of extracting load planning information from the electronic bills-of-lading. Each of the sentences in this paragraph addresses this issue. The cited sentence only continues that discussion. That is apparent from the first few words of the sentence which state "[i]n practice, this system can range…". '078 Patent at col. 6, l. 27 (emphasis added). (A148) The use of the words "this system" shows that the sentence is referring to the system that was discussed in the immediately preceding sentences. The systems discussed in the preceding sentences all pertain to the extraction of either load planning information or billing information from a

42

bill-of-lading, not the system used to actually generate a loading manifest. *See* col. 5, l. 57 – col. 6, ll. 27. (A148) The load planning extraction system discussed in the specification does range from a fully automated one to a system that merely transmits the bill-of-lading to the load planner for manual entry into load planning software. In its proper context, this sentence is irrelevant to the question of whether loading manifests must be generated using load planning software.

Even if the system referred to in this citation extended beyond extraction and to the ultimate generation of the end product of the invention, the language still would not support the trial court's conclusion. In that context, the paragraph in which this sentence appears clearly discusses the use of both a billing system and a load planning system. The sentences of this paragraph alternately and individually address a system to extract and use billing information, and a system to extract and use load planning information. The sentence relied upon by the trial court does not differentiate between a billing system and a load planning system, it simply refers to "this system." *Id*. at col. 6, ll. 27-30. (A148) It clearly is meant to inclusively describe both systems, billing and load planning.

With that, the trial court's error as it applied this sentence to only the load planning system of the '078 Patent is obvious. This sentence establishes a range for the system referred to—from a fully automated system, to one "which relies on paper and uses the system merely as a transmission device." *Id*. at col. 6, ll. 27-30.

(A148) The trial court assumed, with no supporting evidence, that the second part

of this system range refers to the load planning system of this patent. (A3819) In

the assumed context of this sentence as the generation of the end product of this

invention, it does not—it refers to the billing system. *Id*. at col. 6, ll. 23-27.

(A148) It is entirely consistent with this invention that the billing system that

extracts and uses billing information from the bills-of-lading relies on paper and

merely serves as a transmission device. A billing clerk entering billing information

from a printed copy of the electronic image of the bill-of-lading is using (1) paper,

and (2) a system that merely transmits the electronic image of the bill-of-lading.

Thus, in this context, the lower range of the system discussed in this citation and

relied upon by the trial court refers only to the billing system, not the load planning

system. Significantly, when we assume the context of this sentence to be the end

product of this invention, nothing in the intrinsic evidence shows that the lower

range of the "system" in this citation is a reference to the load planning system.

The trial court simply assumed that fact, which was error.[4]

B.   THE TRIAL COURT'S RELIANCE ON N&M WAS ERRONEOUS FOR MULTIPLE REASONS.

As a final basis for its substantive change decision, the trial court interpreted

N&M as "disclos[ing] the manual preparation of loading manifests" based only on

---

[4] Nor can a mere reference to paper support the trial court's ultimate conclusion of a substantive change. A software program that uses paper bills-of-lading and generates paper loading manifests is consistent with the original claim.

a portion of one sentence in N&M that stated: "[f]or the first week you will have to fill out a hand written manifest along with faxing your bills." (A3819) From this alone, the trial court concluded that R+L's "amendment of Claim 1 to 'advance loading manifest document' was necessary to avoid the N&M reference." (A3819-20) The trial court then relied on this conclusion to establish that a substantive change was made to Claim 1. (*See id.*)

Nothing in the intrinsic evidence of the '078 Patent or in N&M itself supports the trial court's substantive change decision. During re-examination, the PTO considered N&M and determined that it deals with manifests for the current—or same—vehicle on which a package arrives. (A3194) Unlike the '078 Patent, N&M does not teach or suggest a loading manifest for <u>another</u> transporting vehicle for the package. (*See id.*) The trial court did not find otherwise. (*See* A3819-20) To the contrary, the trial court accepted the PTO's and R+L's determination that N&M only refers to a manifest for the current or same vehicle on which the package arrives.[5] (*See id.*)

Once R+L's patent counsel pointed out this distinction between the '078 Patent and N&M, the PTO decided not to reject the '078 Patent as being

---

[5] The PTO's assessment of N&M is entitled to deference. *See generally Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999) ("The presumption of validity under 35 U.S.C. § 282 carries with it a presumption that the Examiner did his duty and knew what claims he was allowing.") (Citation omitted).

anticipated by N&M if R+L clarified that the '078 Patent was "for another transporting vehicle." (A3194) There was no other discussion of N&M during re-examination. (*See* A3194-95) Neither the PTO nor R+L ever considered N&M as being relevant to the question of whether "advance" should be added to "loading manifest." (*See id.*) And there is nothing in the record to show that N&M was in any way a motivation for this amendment.

Yet the trial court, without any supporting evidence, came to the summary determination that R+L's "amendment of Claim 1 to 'advance loading manifest document' was necessary to avoid the N&M reference." (A3819-20) The trial court cites to no evidence to support its conclusion. The trial court makes no attempt to explain the obvious contradiction between its conclusion and the record of the re-examination proceedings. Neither Qualcomm nor any of the other defendants below ever suggested in their briefs that adding "advance" to "loading manifest document" was necessary to avoid N&M. (*See generally* A3273-95, A3355-74) The trial court was alone in this determination, and offered no rationale to support it.

In reality, nothing in the record suggests that adding "advance" to clarify "loading manifest" was an effort to address and overcome N&M. Indeed, the Patent Examiners and R+L's patent counsel had already tentatively agreed that all issues raised in the first office action based on the prior art had been resolved

46

before the Examiners first raised the issue of adding "advance" to "loading

manifest." (A3194-95) If this amendment was central to avoiding the prior art

including N&M, as the trial court concluded, then it would have been addressed

and included before agreement was reached that the prior art had been avoided.

The trial court's conclusion is simply unsupported in the record.

CONCLUSION

For the foregoing reasons, R+L Carriers, Inc. respectfully requests that this

Court find that the claim amendments made to the '078 Patent during re-

examination did not result in a substantive change in the scope of the claims.

Accordingly, R+L Carriers, Inc. further respectfully requests that the trial court's

August 12, 2014 Order be vacated, and this case remanded for further action

consistent with this Court's decision.

Respectfully submitted,

       /s/ Anthony C. White
Anthony C. White
Philip B. Sineneng
THOMPSON HINE LLP
41 South High Street, Suite 1700
Columbus, OH 43215-6101
Tel: (614) 469-3200
Fax: (614) 469-3361
Anthony.White@ThompsonHine.com
Philip.Sineneng@ThompsonHine.com

Megan D. Dortenzo
Arthur P. Licygiewicz
THOMPSON HINE LLP
3900 Key Center
127 Public Square
Cleveland, OH 44114-1291
Tel: (216) 566-5500
Fax: (216) 566-5800
Megan.Dortenzo@ThompsonHine.com
Art.Licygiewicz@ThompsonHine.com

Steven J. Butler
THOMPSON HINE LLP
312 Walnut Street, 14th Floor
Cincinnati, OH 45202-4089
Tel: (513) 352-6700
Fax: (513) 241-4771
Steve.Butler@ThompsonHine.com

Attorneys for Plaintiff-Appellant
R+L Carriers, Inc.

ADDENDUM

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION**

IN RE: Bill of Lading Transmission and Processing System Patent Litigation	))))	MDL Docket No. 1:09-md-2050
		JUDGE BECKWITH
This document relates to:	)))	
R+L CARRIERS, INC.	))	
Plaintiff,	))	Case No.: 1:09-cv-445
vs.	))	**AGREED ENTRY OF FINAL JUDGMENT**
QUALCOMM, INC.,	)))	
Defendant.	)	

Upon consideration of R+L Carriers, Inc. ("R+L") and Qualcomm, Inc.'s ("Qualcomm, Inc." and together with R+L, the "Parties") Joint Motion for an Agreed Entry of Final Judgment, and for other good cause shown, it is hereby ORDERED AND ADJUDGED THAT:

(a)   the Parties' Joint Motion for an Agreed Entry of Final Judgment is GRANTED;

(b)   all of R+L's claims against Qualcomm are DISMISSED WITH PREJUDICE, and judgment is hereby entered in favor of Qualcomm on those claims;

(c)   judgment is hereby entered in favor of Qualcomm against R+L on Qualcomm's counterclaim of non-infringement;

(d)   Qualcomm's counterclaim seeking a declaratory judgment of invalidity of U.S. Patent 6,401,078 is DISMISSED WITHOUT PREJUDICE as moot;

(e)   Qualcomm's exceptional case counterclaim is DISMISSED WITHOUT PREJUDICE in view of the Court's order extending the deadline for Qualcomm to file any

A3841

motion for costs, attorneys' fees, an exceptional case determination, or other reliefuntil after the

Court of Appeals for the Federal Circuit enters its mandate on R+L's appeal of this Court's Final

Judgment, or the time has expired for filing an appeal if no appeal is filed;

(f)   any and all pending motions filed by Qualcomm are DENIED WITHOUT

PREJUDICE as moot;

(g)   this is a final and appealable judgment of non-infringement as to Qualcomm

under Fed. R. Civ. P. 54(b) entered upon an express determination that there is no just reason for

delay; and

(h)   nothing in this Agreed Entry shall preclude the Parties from taking an appropriate

appeal permitted under law of any adverse determination including, but not limited to, the

Court's May 19, 2014 Order (Docket No. 372).

SO ORDERED,

Date: _8/12/14_   _____
                    The Honorable Sandra S. Beckwith

Agreed to by:

_____/s/ Anthony C. White_____
Anthony C. White   (0062146)
THOMPSON HINE LLP
41 S. High Street, Suite 1700
Columbus, OH 43215-6101
Tel: (614) 469-3200; Fax: (614) 469-3361
Tony.White@ThompsonHine.com

Counsel for Plaintiff R+L Carriers, Inc.

2

A3842

_____/s/ Richard S. Zembek_____

Richard S. Zembek
FULBRIGHT & JAWORSKI LLP
Fulbright Tower
1301 McKinney, Suite 5100
Houston, TX 77010-3095
Tel: (713) 651-5151; Fax: (713) 651-5246
richard.zembek@nortonrosefulbright.com

Counsel for Defendant Qualcomm, Inc.

3

A3843

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION

	:	MDL Docket No. 1:09-md-2050
IN RE: Bill of Lading Transmission and	:	
Processing System Patent Litigation.	:	
_____	:	

O R D E R

This matter is before the Court on its sua sponte order directing the parties to brief the effect, if any, on this lawsuit of the Patent & Trademark Office's ("PTO") decision to allow amended claim 1 at the conclusion of the ex parte reexamination of the patent-in-suit. Doc. No. 359. The parties filed principal briefs on the question presented by the Court on April 14, 2014 and responsive briefs on April 30, 2014. (Doc. Nos. 366-369). Accordingly, the question presented by the Court is ripe for decision. For the reasons that follow, the Court concludes that the reexamination proceedings resulted in a narrowing of claim 1, thereby precluding recovery of damages for infringement prior to the date the PTO issued the reexamination certificate. The Court concludes further, however, that the scope of claim 1 was not broadened during the reexamination proceedings. Consequently, claim 1 is not invalid on the grounds that it was impermissibly enlarged during those proceedings.

I. Introduction

A redundant but necessary introduction - Plaintiff R+L Carriers, Inc. is the owner of U.S. Patent 6,401,078 ("the '078 Patent") with an original issue date of June 4, 2002.

A3812

Generally speaking, the '078 Patent claims a method for transmitting bills of lading to improve the efficiency of less-than-a-load trucking operations.

Claim 1 is the only independent claim of the '078 Patent. As originally issued claim 1 stated:

> 1. A method for transferring shipping documentation data for a package from a transporting vehicle to a remote processing center:
>
>   placing a package on a transporting vehicle;
>
>   using a portable document scanner to scan an image of the documentation data for the package, said image including shipping details of the package;
>
>   providing a portable image processor capable of wirelessly transmitting the image from the transporting vehicle;
>
>   wirelessly sending the image to a remote processing center;
>
>   receiving the image at said remote processing center; and
>
>   prior to the package being removed from the transporting vehicle, utilizing said documentation data at said remote processing center to prepare a loading manifest which includes said package for further transport of the package on another transporting vehicle.

'078 Patent col. 13, ll. 40-48, col. 14, ll. 1-12.

Currently pending before the Court are claims concerning alleged direct and induced infringement of the '078 Patent. In June 2013, Plaintiff applied to the PTO for ex parte reexamination the '078 Patent on the grounds that several prior art references raised substantial new questions of patentability of the patent. In August 2013, the PTO granted the application for reexamination and in December 2013 issued a First Office Action rejecting claims 1 through 9 of the '078 Patent as either being anticipated by the prior art references or obvious in light of the prior art references.

Plaintiff contested the First Office Action but, after concluding an in-person

A3813

interview with the patent examiner, amended claim 1 as follows (amendments

italicized):

> 1. A method for transferring shipping documentation data for a package from a transporting vehicle to a remote processing center *comprising the steps of:*
>
> placing a package on a transporting vehicle;
>
> using a portable document scanner to scan an image of the documentation data for the package, said image including shipping details of the package;
>
> providing a portable image processor capable of wirelessly transmitting the image from the transporting vehicle;
>
> wirelessly sending the image to a remote processing center;
>
> receiving the image at said remote processing center; and
>
> prior to the package being removed from the transporting vehicle, utilizing said documentation data at said remote processing center to prepare [a] *an advance* loading manifest *document for another transporting vehicle* which includes said package for further transport of the package on another transporting vehicle.

See Doc. No. 367-3 (Reexamination Certificate). As can be seen, Plaintiff amended the

'078 Patent by adding "comprising the steps of" as a transitional phrase in the preamble,

by changing "a loading manifest" to "an advance loading manifest document," and by

inserting the phrase "for another transporting vehicle" after "advance loading manifest

document." The PTO concluded that as a result of these amendments, the '078 Patent

was not anticipated by or obvious in light of the cited prior art references. The PTO

issued an Intent to Issue Reexamination Certificate confirming claims 1-9 as amended

on February 26, 2014. The PTO issued the Reexamination Certificate on March 21,

2014.

Because the ex parte reexamination proceedings potentially altered the scope of

-3-

A3814

the claims of the patent-in-suit, with a consequent effect on the infringement and

invalidity claims at issue in this case, the Court sua sponte ordered the parties to brief

the effect, if any, of the amended claims on this case.

II. Plaintiff Narrowed Claim 1 by Amending "Loading Manifest" to "Advance Loading Manifest Document"

Title 35, Section 252 of the United States Code provides that when reexamined

or reissued claims are identical to those of the original patent, they shall "have effect

continuously from the date of the original patent." If, however, a patentee narrows a

claim during patent reexamination proceedings, he is precluded from recovering

damages for infringement prior to the effective date of the amended claim. Bloom Eng'g

Co., Inc. v. North Am. Mfg. Co., Inc., 129 F.3d 1247, 1250 (Fed. Cir. 1997); Fresenius

USA, Inc. v. Baxter Int'l, Inc., 721 F.3d 1330, 1339 (Fed. Cir. 2013). "Unless a claim

granted or confirmed upon reexamination is identical to an original claim, the patent can

not be enforced against infringing activity that occurred before issuance of the

reexamination certificate." Bloom Eng'g, 129 F.3d at 1250. The Bloom Engineering

Court explained further the process for determining when an amended claim is identical

to the original claim:

> "Identical" does not mean verbatim, but means at most without substantive change. . . [T]he scope of the claims must be the same after reissue, not that the same words must be used. Thus whether amendments made to overcome rejections based on prior art are substantive depends on the nature and scope of the amendments, with due consideration to the facts in any given case that justice will be done.

> There is no absolute rule for determining whether an amended claim is legally identical to an original claim. An amendment that clarifies the text of the claim or makes it more definite without affecting its scope is generally viewed as identical for the purpose of § 252. Determination of whether a claim change during reexamination is substantive requires analysis of the scope of the original and

-4-

A3815

reexamined claims in light of the specification, with attention to the references that occasioned the reexamination, as well as the prosecution history and any other relevant information.

Id. (some quotation marks and internal citations omitted).

In this case, the parties agree that the term "advance loading manifest document" is limited to loading manifests that are created or prepared by computer load planning software. Indeed, that definition is specifically mentioned in the specification of the patent. See '078 Patent, col. 7, ll. 48-50 ("Advance loading manifests are documents generated by the load planning software[.]"). Defendants argue that Plaintiff narrowed the scope of claim 1 by amending it to "advance loading manifest document" because as originally issued, the term "loading manifest" in claim 1 was broad enough to cover both manually prepared loading manifests and loading manifests prepared by computer load planning software. Plaintiff, however, contends that the term "loading manifest" in original claim 1 was always limited to covering loading manifests prepared by computer load planning software and that the amendment of claim 1 to "advance loading manifest document" was made simply to clarify that point. See Doc. No. 369, at 14 (Plaintiff's Reply Brief) (rejecting Defendants' argument that "the loading manifest described in original claim 1 could be generated by a human without using software."); see also id. ("Over and over again, the specification teaches that these loading manifests were always prepared using computer software[.]"). According to Plaintiff, this amendment did not result in a substantive change to claim 1. The Court concludes, however, that the scope of "advance loading manifest document" in amended claim 1 is narrower than the scope of "loading manifest" in original claim 1.

First, the plain language of original claim 1 puts no limitation on the means by

-5-

A3816

which a person practicing the method can prepare a loading manifest. Rather, claim 1

states that a person practicing the method performs the last step by "*utilizing* said

documentation data at said remote processing center to prepare a loading manifest

which includes said package for further transport of the package on another transporting

vehicle." '078 Patent, col. 14, ll. 7-12 (emphasis added). To "utilize" something is to

"make use of" it. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 2525 (1971). In

other words, the last step of original claim 1 only requires a person practicing the patent

to use the documentation data to prepare a loading manifest - there are no limitations

on how the documentation data is actually used to prepare the loading manifest.

Moreover, there is no indication in the specification that the patentee was giving

"utilizing" a meaning other than its ordinary meaning.

Second, the Court's claim construction of original claim 1 did not impose any

limitations on how a person practicing the patent prepares the loading manifest. See

Doc. No. 348 (Order on Claim Construction), at 4 (defining "loading manifest" as "a

document that both identifies the cargo of a vehicle and all the packages that must be

on another transporting vehicle for further shipment.").

Third, while Plaintiff is correct that the specification of the '078 Patent is replete

with references that "an advance loading manifest document" is generated by computer

load planning software, Plaintiff is incorrect that the specification does not disclose or

teach preparing loading manifests manually. In fact, there are several references in the

specification to manually preparing loading manifests.

Figures 1A and 1B, which are flow charts of a preferred embodiment, indicate

that load planning information is transmitted to a "*load planner* or load planning

-6-

A3817

software." '078 Patent, Figures 1A & 1B. The Summary of the Invention states that

"The load planning data is sent to a *load planner* or to load planning software[.]" '078

Patent, col. 2, ll. 65-67 (emphasis added). Later, the specification recites that once a

document communication system extracts the load planning information from the bill of

lading, the system will "transmit the required information to *either the load planner* or the

billing and accounting software package." '078 Patent, col. 5, ll. 55-56 (emphasis

added). The specification next states that an optical character reader could extract the

load planning information which "would preferably then be transmitted to *the load

planner* over a local area network" but to save time the information could be transmitted

directly to a computer that "would run a load planning software package which would do

the load consolidation and planning automatically." '078 Patent, col. 5, ll. 57-67, col. 6,

ll. 1-6 (emphasis added). A person of ordinary skill in the art would understand that a

"load planner," particularly when that term is consistently juxtaposed with terms such as

"load planning software package," is a person who manually prepares the loading

manifest.

The specification also indicates in several places that use of load planning

software to prepare the loading manifest is optional. The specification notes that "*If a

computerized load planning system was not utilized*, a paper copy of the electronic bill

of lading would be printed and given to *the load planner*." '078 Patent, col. 6, ll. 12-15

(emphasis added). Next, the specification states that "[t]he load planning information

extracted *could be* transmitted or input into a load planning software package that could

automatically build a shipping and loading plan to minimize partial loads and keep the

shipments on time." '078 Patent, col. 6, ll. 19-23 (emphasis added). Finally, the

A3818

specification states, "In practice, this system can range from a fully automatic, electronic, paper less [sic] system *to one which relies on paper and uses the system merely as a transmission device.*" '078 Patent, col. 6, ll. 27-30 (emphasis added).

In short, the specification clearly discloses that use of load planning software to prepare the loading manifest is not mandatory to practice the claimed method and that the manual preparation of loading manifests is contemplated by the method as originally claimed. Plaintiff's contention that the term "loading manifest" has always been limited to documents prepared by load planning software violates the maxim that limitations from the specification cannot be used to limit the scope of the claim. Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366, 1374 (Fed. Cir. 2008). Moreover, given the numerous references in the specification relating to the manual preparation of loading manifests, Plaintiff's argument also violates the principle that a claim construction that excludes a preferred embodiment "is rarely, if ever, correct." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996); see also Primos Inc. v. Hunter's Specialties Inc., 451 F.3d 841, 848 (Fed. Cir. 2006) ("[W]e . . . should not normally interpret a claim term to exclude a preferred embodiment.").

Fourth and finally, at least one of the prior art references considered during the reexamination proceedings discloses the manual preparation of loading manifests. Specifically, the N&M reference notes that "[f]or the first week you will have to *fill out a hand written manifest* along with faxing in your bills." Doc. No. 366-1, at 9 (emphasis added). Although the examiner was apparently considering N&M in the context of whether the loading manifest in that reference related to the current transporting vehicle or another transporting vehicle, it is reasonable to conclude that N&M also anticipated

-8-

A3819

manually prepared loading manifests and, consequently, that Plaintiff's amendment of claim 1 to "advance loading manifest document" was necessary to avoid the N&M reference.

In summary, the foregoing discussion illustrates that, as originally allowed, claim 1 of the '078 Patent covered loading manifests prepared both manually and through use of load planning software. The term "advance loading manifest document" is narrower than "loading manifest" given the parties' agreement that an advance loading manifest document is only prepared by computerized load planning software. Therefore, this amendment to claim 1 was substantive, meaning that amended claim 1 is not identical to original claim 1.

Accordingly, Plaintiff is precluded from recovering damages for infringement prior to the issue date of the reexamination certificate.

III. Adding "comprising the steps of" as a Transitional Phrase to Claim 1 Did Not Broaden the Scope of the Claim

A patentee cannot enlarge the scope of a claim during reexamination proceedings. Quantum Corp. v. Rodime, PLC, 65 F.3d 1577, 1580 (Fed. Cir. 1995). A claim that has been enlarged in reexamination proceedings is invalid. Id. at 1584; Thermalloy, Inc. v. Aavid Eng'g, Inc., 121 F.3d 691, 692 (Fed. Cir. 1997). A claim has been enlarged if it includes within its scope any subject matter that would not have infringed the original claim. Quantum Corp., 65 F.3d at 1580.

Use of the word "comprising" as a transition in the preamble of a claim signals that the claim is open-ended, meaning that it does not exclude elements or steps not specifically recited in the claim. MagSil Corp. v. Hitachi Global Storage Tech., Inc., 687

-9-

A3820

F.3d 1377, 1383 (Fed. Cir. 2012). In other words, with an open-ended claim, an

accused method can perform additional steps and still infringe the claimed method.

Whirlpool Corp. v. LG Elec., Inc., 423 F. Supp.2d 730, 741 (W.D.Mich. 2004). In this

case, the addition of "comprising the steps of" as a transitional phrase in the preamble

of amended claim 1 presumptively makes that claim an open-ended claim. Magsil, 687

F3.d at 1377. Indeed, Plaintiff does not contend otherwise. Accordingly, the scope of

amended claim 1 is broader than the scope of the steps specifically recited in the claim.

The issue presented, therefore, is whether original claim 1 was open-ended or whether

its scope was limited to the six steps specifically recited in the claim. If original claim 1

was not open-ended, then it was impermissibly broadened during the reexamination

process.

Initially, the Court notes that despite considerable research on its part, it does not

appear that an interpretative default rule has ever been laid to down to establish if a

claim is open-ended, closed-ended, or partially open-ended when "comprising" is not

included in the preamble. Nevertheless, if a claim is presumptively open-ended when

"comprising" is in the preamble, it is logical that the obverse would be true - a claim is

presumptively not open-ended when "comprising" is not included in the preamble.

Compare with Crystal Semiconductor Corp. v. TriTech Microelec. Int'l., Inc., 246 F.3d

1336, 1348 (Fed. Cir. 2001)(stating that the transition "having" can make a claim open-

ended, but that "having" does not convey the open-ended meaning as strongly as

"comprising"; therefore "having" "does not create a presumption that the body of the

claim is open."). Accordingly, in this case, since the transition "comprising the steps of"

was not included in the preamble of original claim 1, the Court starts with the

-10-

A3821

presumption that original claim 1 was not open-ended. The Court, however, must

examine original claim 1 in its "full context" to determine whether it was open-ended or

limited to its recited steps. Id.; see also Lampi Corp. v. American Power Prod., Inc., 228

F.3d 1365, 1376 (Fed. Cir. 2000) ("Transitional phrases such as 'having' must be

interpreted in light of the specification to determine whether open or closed language is

intended.")(quoting MPEP § 2113.03 (7th ed. rev. 2000)(internal ellipses omitted). In

light of its examination of the specification, the Court concludes that original claim 1 was

open-ended. Therefore, claim 1 was not broadened during the reexamination

proceedings.

The Court agrees with Plaintiff that the specification of original claim 1 indicates

that claim 1 was broad enough to cover, at a minimum, accused methods which also

include a billing step. As Plaintiff correctly observes, the specification contains many,

many references to performing load planning and billing as part of the same process.

Doc. No. 369, at 7-8. Citing a few examples, therefore, will be sufficient to illustrate the

point. Figures 1A and 1B indicate that billing information is transmitted to a billing or

accounting software package. '078 Patent, Fig. 1A & 1B. The Background of the

Invention states that the claimed method involves "transmitting shipping documents or

bills of lading directly from the truck driver to a common point or terminal *so that billing

and load planning* can be accomplished while the load is being delivered from the

customer." '078 Patent, col. 1, ll. 17-20 (emphasis added). The Summary of the

Invention states that billing and load planning information is extracted from the

electronic bill of lading and that "the billing data is sent to the billing clerk or

accounting/billing software application." '078 Patent, col. 3, ll.1-2. Columns 5 and 6 of

A3822

the patent contain an extended discussion of methods for extracting and processing billing data from the bill of lading. '078 Patent, cols. 5-6, passim.

The Court concludes that the specification of the '078 Patent indicates that original claim 1 was broader than the elements specifically recited in the claim. Therefore, Plaintiff did not impermissibly enlarge the scope of claim 1 during the reexamination proceedings. Consequently, amended claim 1 is not invalid on the grounds that it was impermissibly broadened during reexamination. While Defendants contend that Plaintiff admits that it used the reexamination process for an impermissible purpose by adding "comprising the steps of" to clarify claim 1, and therefore, that the amended claim is invalid, amendments that clarify the claim language or make it more definite are permissible during reexamination. Bloom Eng'g, 129 F.3d at 1250. Here, the Court agrees with Plaintiff that the addition of "comprising the steps of" to claim 1 simply made definite what was already indicated by the specification. Defendants' motion to file an additional brief to further emphasize its argument (Doc. No. 370) is not well-taken and is **DENIED.**

-12-

A3823

<u>Conclusion</u>

In conclusion, the Court finds that Plaintiff narrowed the scope of claim 1 during the reexamination proceedings. Therefore, Defendants are entitled to judgment on infringement claims that predate the issuance of the reexamination certificate. Plaintiff, however, did not broaden the scope of claim 1 during the reexamination proceedings. Therefore, amended claim 1 is not invalid on the grounds that it was enlarged during reexamination.

IT IS SO ORDERED.

Dated: May 19, 2014   <u>   s/Sandra S. Beckwith   </u>
                                                            Sandra S. Beckwith
                                              Senior United States District Judge

A3824

US006401078B1

(12) **United States Patent**   (10) **Patent No.:**   **US 6,401,078 B1**
Roberts et al.   (45) **Date of Patent:**   **Jun. 4, 2002**

(54) **BILL OF LADING TRANSMISSION AND PROCESSING SYSTEM FOR LESS THAN A LOAD CARRIERS**

(75) Inventors: **Ralph L. Roberts**, Reddick, FL (US); **Steve F. Naghshineh**, Cincinnati, OH (US)

(73) Assignee: **R & L Carriers**, Wilmington, OH (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/542,682**

(22) Filed: **Apr. 3, 2000**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/283,032, filed on Apr. 1, 1999.
(60) Provisional application No. 60/080,365, filed on Apr. 1, 1998.

(51) **Int. Cl.**^{7} **G06F 17/60**
(52) **U.S. Cl.** **705/28**
(58) **Field of Search** 705/28

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,711,862 A	1/1973	Story	700/90
3,979,731 A	9/1976	Naplatanov et al.	701/118
4,360,875 A	11/1982	Behnke	455/456
4,799,156 A	1/1989	Shavit et al.	705/26
4,832,204 A	5/1989	Handy et al.	209/3.3
4,888,692 A	12/1989	Gupta et al.	700/96
5,051,914 A	9/1991	Sansone et al.	700/223
5,168,444 A	12/1992	Cukor et al.	705/1
5,168,451 A	12/1992	Bolger	701/117
5,265,006 A	11/1993	Asthana et al.	705/8
5,272,324 A	* 12/1993	Blevins	235/462
5,278,750 A	1/1994	Kaneko et al.	705/8
5,485,369 A	1/1996	Nicholls et al.	705/9
5,528,489 A	6/1996	Asahara et al.	705/9
5,539,810 A	* 7/1996	Kennedy, III et al.	379/59
6,154,658 A	* 11/2000	Caci	455/466

FOREIGN PATENT DOCUMENTS

DE   297 00 373   * 7/1997

OTHER PUBLICATIONS

"Telex speeds container information," Communicate for the Telecommunications User, Dec. 1986, vol. 6, No. 11, p. 38.*
"Portability means never being out of touch" by F. Donnelly, Marketing, May 23, 1991, p. 25, 28.*
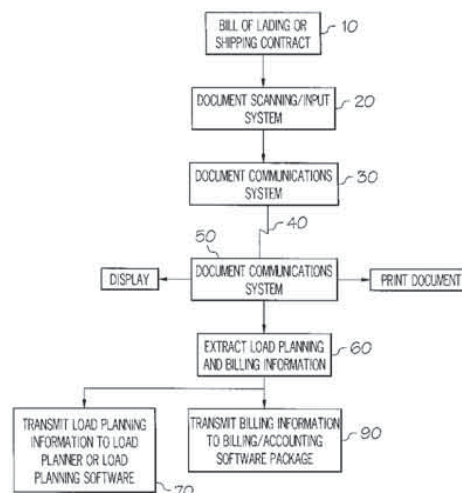
* cited by examiner

Primary Examiner—Kenneth R. Rice
(74) *Attorney, Agent, or Firm*—Dinsmore & Shohl LLP

(57)   **ABSTRACT**

The present invention automates the process of receiving transportation documentation and producing advance loading manifests therefrom to optimize load planning and dynamic product shipment and delivery control. Methods provide for receipt of the transportation documentation, initial preparation, and transmission of the documentation from on board a vehicle or while the vehicle is in transit. A remote processor receives the documentation, stores the documentation and feeds the documentation to a load planning software for generation of advance loading manifests from the remote processor and receive them on demand. Further, a mobile data transmission device is provided for use by a driver to communicate transportation documentation, and vehicle information to the remote processor, and, in some applications, can receive instructions for en route alterations of package pickup or delivery.

9 Claims, 8 Drawing Sheets

A137

FIG. 1A

FIG. 1B

FIG. 2A

FIG. 2B

A140

U.S. Patent   Jun. 4, 2002   Sheet 4 of 8   **US 6,401,078 B1**

FIG. 3

A141

U.S. Patent   Jun. 4, 2002   Sheet 5 of 8   US 6,401,078 B1

FIG. 4

U.S. Patent   Jun. 4, 2002   Sheet 6 of 8   US 6,401,078 B1

REMOTE
PROCESSOR   450

RECEIVE IMAGE

CLASSIFY

STORE   480   ENHANCE

470   490

ROUTE   460   OCR

LOCATION #1   LOCATION #2   520   500

510
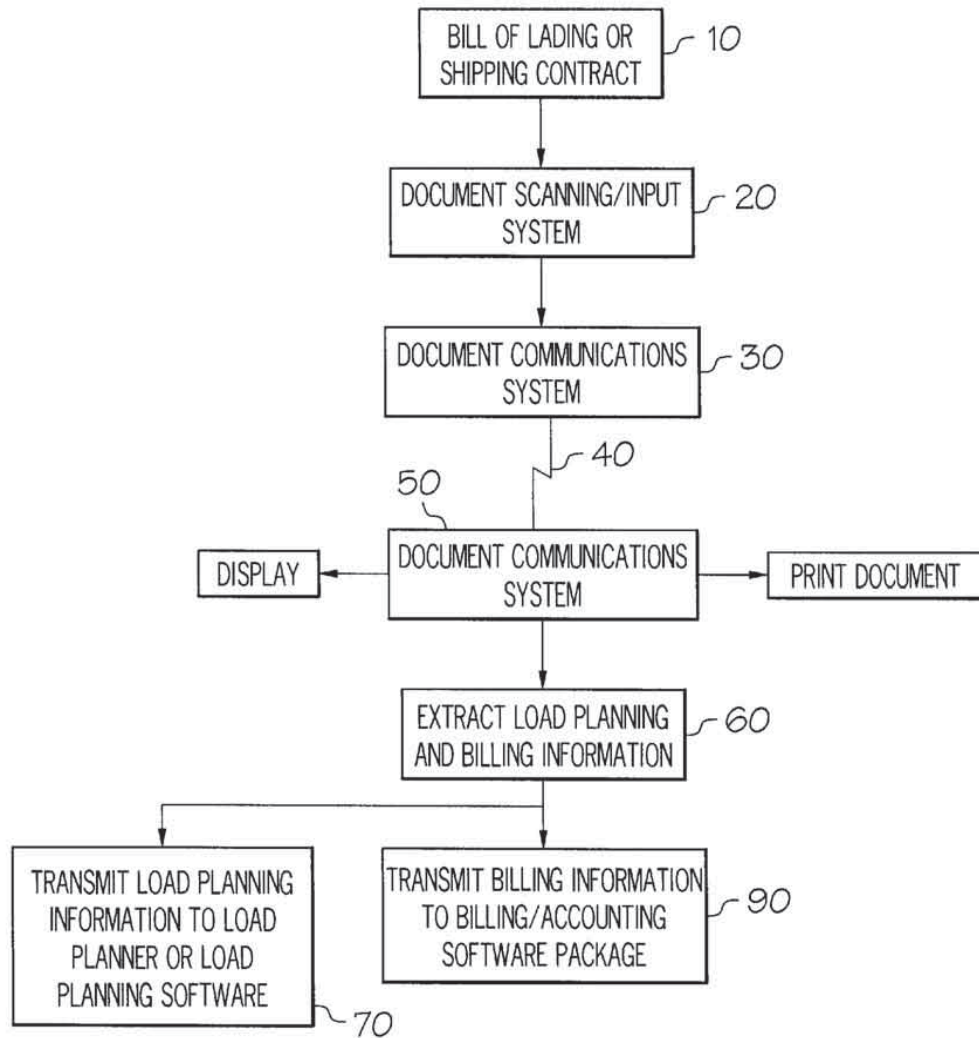
FIG. 5

A143

U.S. Patent   Jun. 4, 2002   Sheet 7 of 8   US 6,401,078 B1

FIG. 6

A144

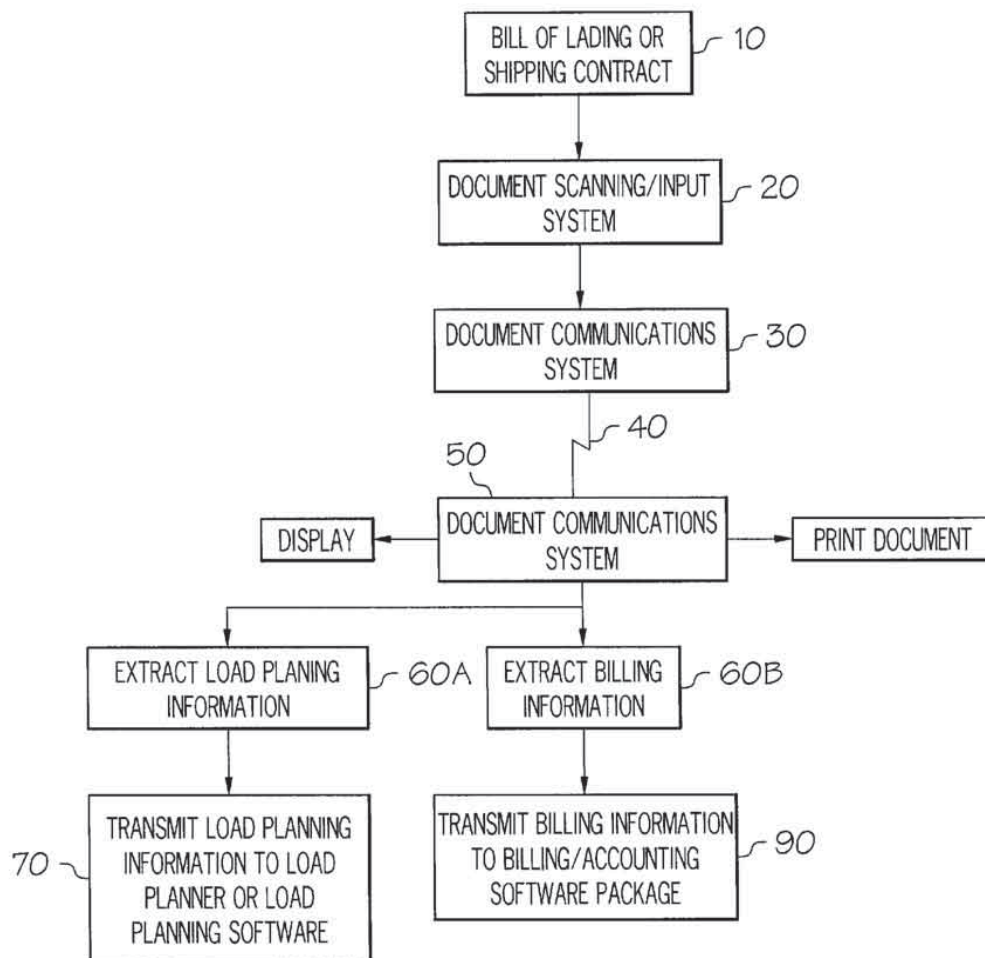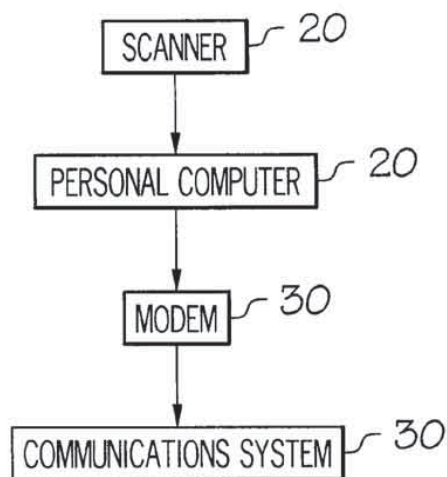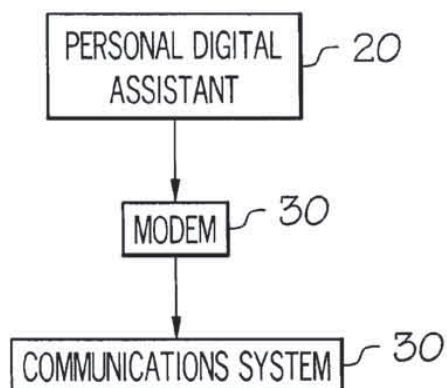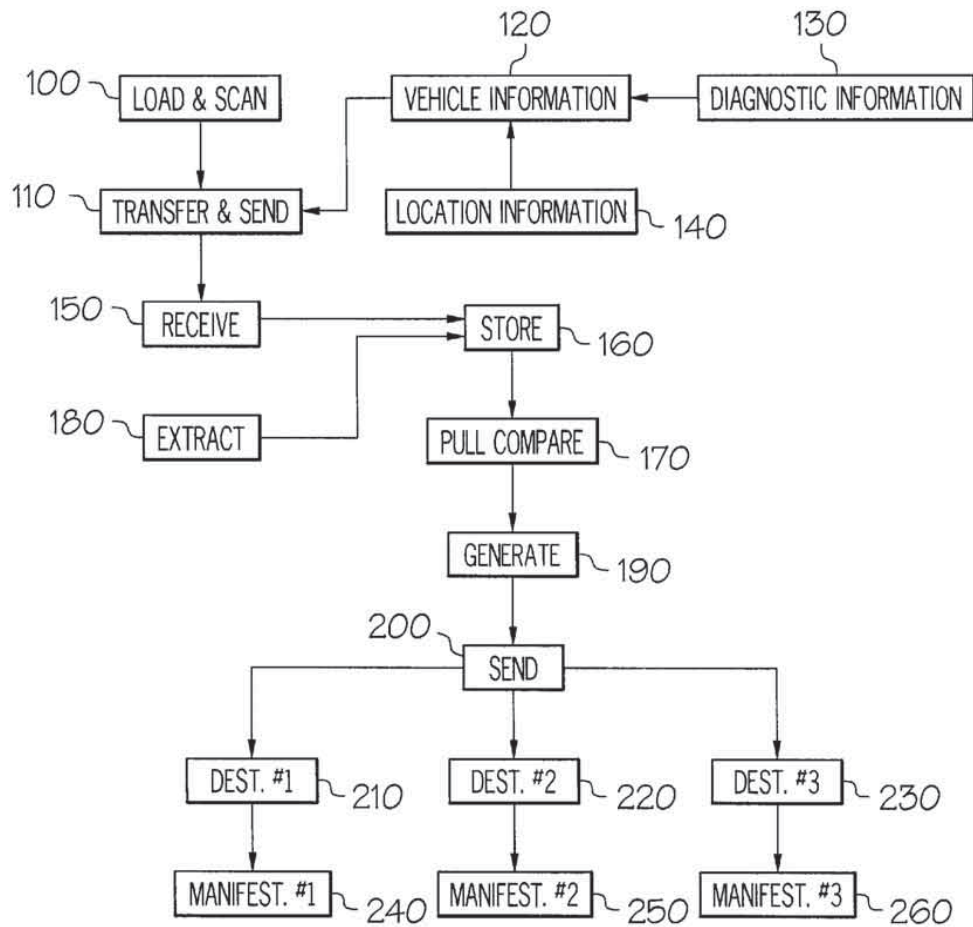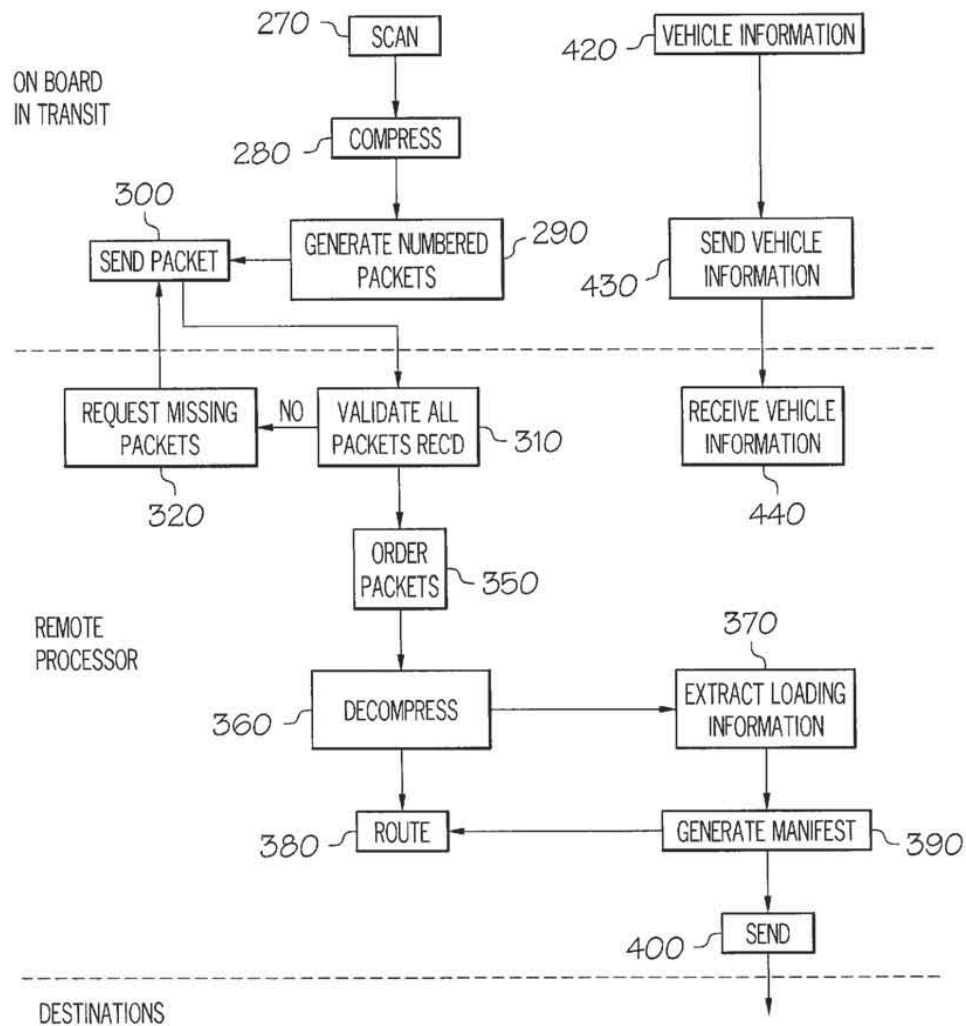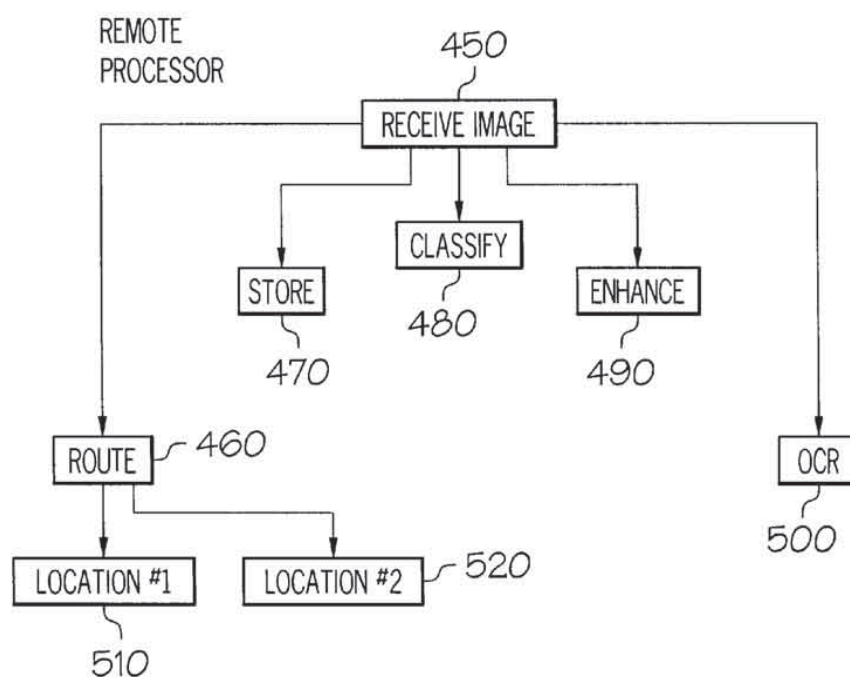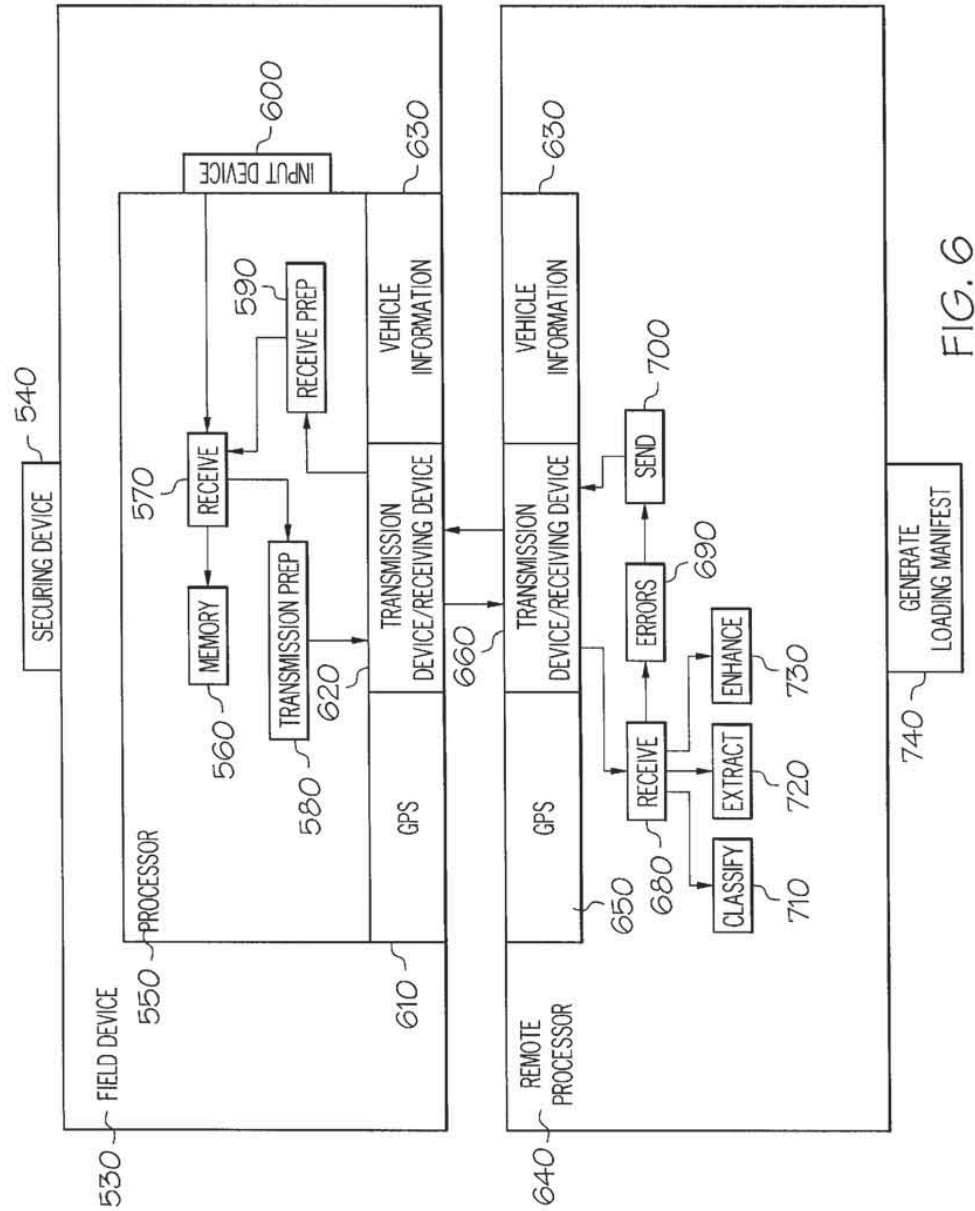**U.S. Patent**   Jun. 4, 2002   Sheet 8 of 8   US 6,401,078 B1
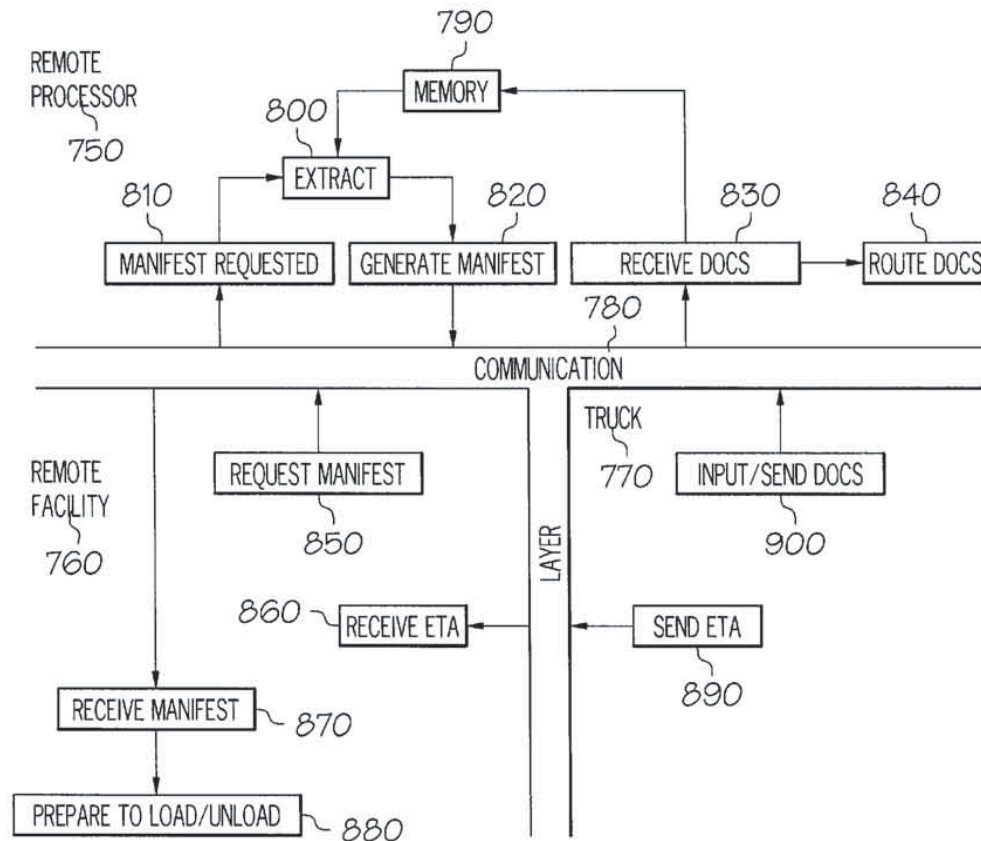

FIG. 7

A145

US 6,401,078 B1

1

BILL OF LADING TRANSMISSION AND PROCESSING SYSTEM FOR LESS THAN A LOAD CARRIERS

This application is a continuation-in-part of United States patent application Ser. No. 09/283,032 filed Apr. 1, 1999, the disclosure of which is incorporated herein by reference. United States patent application Ser. No. 09/283,032 claims the benefit of United States Provisional Patent Application Serial No. 60/080,365 filed Apr. 1, 1998.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to methods of dynamic load planning and billing used by less-than-a-load (LTL) carriers and more particularly, to a method for transmitting shipping documents or bills of lading directly from the truck driver to a common point or terminal so that billing and load planning can be accomplished while the load is being delivered from the customer.

2. General Background

The shipping industry consists primarily of three types of carriers, each offering services that satisfy different customer needs. There are small package carriers like Federal Express, United Parcel Service and others who pick up small packages, consolidate these packages into large loads, move them close to their destination point and then deliver the packages. At the opposite end of the shipping business are the large customers which fill entire trucks or trailer loads and are considered to be truck load shippers. The category in between the truck load shippers and the small package shippers are less-than-a-load (LTL) carriers. Similar to the UPS driver who collects and delivers many small packages during a business day, the less-than-a-load (LTL) carrier picks up freight from upwards of 20 different customers. This freight is typically destined to many different locations around the country. The freight is brought back to a terminal where the shipments are unloaded from the truck, consolidated with other freight moving in the same direction and then reloaded on delivery trucks. The freight is sorted and consolidated into truck loads at the terminal to minimize the empty space on the truck that will transport the freight from the local terminal to either a local delivery or a distribution terminal in another city or state. At the distribution terminal the truck will be unloaded and its freight restored and reconsolidated for delivery to customers in the local area around the distribution terminal or shipment to another distribution terminal.

Each individual shipment is governed by a separate contract called a "bill of lading". Often, customers will have their own bill of lading form that they use for shipping. Thus, over the course of a day a truck driver may collect many different bill of lading forms, one for each shipment. As in any business, efficiency and speed are measuring sticks for customer service. As an internal matter, as with any other business, the faster payment is received, the better the cash flow. The speed and efficiency of these processes are what gives a trucking or other carrier a competitive edge. Typically, a truck driver will leave the truck terminal in the morning and return in the evening. When he returns he has a hand full of bill of lading forms and other paper work which is submitted to the corporate office where it is processed by billing clerks using data entry skills. After the information from each bill of lading is entered, the shipping information is transmitted to the loading dock at the terminal so that the freight moving to common points can be consolidated and the delivery schedule planned.

2

The goal of proper load planning is to deliver the freight on time with the delivery truck leaving the terminal with a full load. Unfortunately, both the truck used to pick up the freight and the truck used to deliver the freight are often sitting idle at the terminal while the data entry and load planning functions are being performed. Additionally, because the freight typically comes in one truck at a time the loading dock may not know in advance of the trucks' arrival at the terminal or the contents and the destination of the freight picked up on a given day. Consequently, a delivery truck will often depart the terminal only partially loaded. Many of these partially loaded trucks could have been fully loaded had the load planner known about unscheduled freight that had been picked up and would soon arrive at the terminal. This movement of freight as partial also results in decreased efficiency, increased costs and reduced profits for the trucking company.

Computer software has been developed to perform load and shipping planning functions. U.S. Pat. No. 5,265,006 titled "DEMAND SCHEDULED PARTIAL CARRIERS LOAD PLANNING SYSTEM FOR THE TRANSPORTATION INDUSTRY" is an example of this type of software. Load planning software, while reducing the time expended in planning shipments, is unable by itself to reduce the inefficiency caused by partial loads that could have been full loads due to unscheduled freight, since this freight would not have been entered into the computer program.

U.S. Pat. No. 5,168,444, (Cukor), titled "SHIPMENT SYSTEM INCLUDING PROCESSING OF DOCUMENT IMAGES", is the closest prior art to the present invention. Cukor illustrates a system where the bills of lading are faxed from local shipping terminals to the shipping company's headquarters. At headquarters, where the data entry clerks could be supervised, a data entry clerk views the image of the bill of lading and enters the appropriate information in to the billing and accounting database. This system while using a fax machine, still requires that the truck driver return to a terminal before the shipping documents are sent to the company headquarters. Thus, while this system may reduce the errors made by the data entry personnel, it does not reduce the inefficiencies caused by the data entry clerks waiting for a driver to arrive at a terminal with the bills of lading and fax the bills of lading to headquarters, or the inefficiency caused by the driver waiting for the load planning to be completed.

SUMMARY OF THE INVENTION

The present invention has solved the problems described above and comprises broadly a system for transmitting bills of lading to a central facility so that billing and load planning may be accomplished while the freight is en route to a terminal, the equipment used to transmit the bill of lading from the driver to a terminal or central location, and the method for transmitting the bill of lading. There is a document input system that provides for scanning the paper bill of lading into an electronic data format or electronic bill of lading. Connected to the input system is a document transmitting system. The transmitting system transmits the electronic bill of lading to a document receiving system using a communications link. The document receiving system is connected to a document processing system. This processing system provides for the display and printing of the electronic bill of lading; for sharing the electronic bill of lading over a network; and for extracting load planning and billing information from the electronic bill of lading. The load planning data is sent to a load planner or to load planning software and the billing data is sent to a load planner or to load planning

A146

US 6,401,078 B1

3

software and the billing data is sent to the billing clerk or accounting/billing software application. With this information in the computer system, the customer can now be billed as well as appropriate load planning can be accomplished, so that when the truck driver returns to the terminal the load planning is completed. Thus, each freight shipment can be unloaded from the truck and directly placed on the truck that will be carrying that load to its next destination. Having the load planning accomplished prior to the freight's arrival, reduces the freight turn-around time and freight handling. Additionally, since the load planner knows what freight is on its way to the terminal, fewer delivery trucks will depart with partial loads. Consequently, the trucking company would be able to move the same amount of freight at a lower cost.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A is a block diagram of a load planning and billing system setup in accordance with the present invention;

FIG. 1B is a block diagram of an alternate embodiment of a system for load planning and billing similar to that shown in FIG. 1;

FIG. 2A is a functional block diagram of document scanning and transmission device using a personal computer setup in accordance with the present invention;

FIG. 2B is a functional block diagram of an electronic bill of lading transmission system setup in accordance with he present invention;

FIG. 3 is a flow diagram depicting a preferred method of transmitting shipping documentation in accordance with the present invention;

FIG. 4 is a flow diagram depicting a preferred method of processing an image in accordance with the present invention;

FIG. 5 is a diagram depicting a preferred image processing by a remote processor in accordance with the present invention;

FIG. 6 is a preferred device capable of scanning and transmitting an image to a remote processor in accordance with the present invention; and

FIG. 7 is a diagram of a preferred remote processor which dynamically generates advance loading manifests in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. 1A illustrates a bill of lading transmission and processing system for less-than-a-load (LTL) carriers in accordance with the present invention. The bill of lading transmitting and processing system **10** comprises scanning a document using a scanning/input system **20**, initiating a document transmission using a communication system (transmitter) **30**, establishing a connection using a communications link **40**, receiving a document using a communications system (receiver) **50**, extracting the load planning and billing information **60** from a transmitted electronic bill of lading, transmitting or sharing the load planning information with a load planner or load planning software **70**, and transmitting or sharing the billing information extracted from the electronic bill of lading with a billing or accounting software package **90**. The illustrated system is designed so that a track driver, while en route, can transmit a bill of lading received from a customer to a central processing location where the billing and load planning information is extracted and used.

4

FIG. 1B shows an alternative version of the system described above. The only difference is that the extraction of load planning and billing information is split into two blocks. The extraction of load planning data **60A** and the extraction of billing information **60B**. This information is used as described above.

The document scanning/input system **20** can take many different forms. The preferred method and system comprises a portable scanner connected to a notebook computer. This computer must be capable of being interfaced with the communication system (transmitter) **30** selected by the user. Alternatively, a portable fax machine capable of being either directly or through an interface circuit connected to a variety of communications systems including but not limited to cellular telephones, radio links, satellite communication systems and standard telephone systems. If a scanner connected to a personal computer system is used, the computer must have the appropriate software as well as the appropriate PCIMA card or a built in interface for connection to any of the above communication systems (transmitter) **30**. As an alternative to using a full notebook computer, a personal digital assistant (PDA) may be utilized if it has the appropriate interface capability between the scanner and the communication system **30** selected. Additionally, if customers agree to use a standard electronic form for a bill of lading or other shipping document, the form could be given to the driver on disk and then transmitted directly without the need for scanning. Furthermore, a PDA or personal computer could be programmed with an electronic form that the customer could fill out and sign while the driver was loading the shipment. After review and verification by the driver, the PDA or computer would then transmit the electronic form to the communication system. Thus, it can be readily seen that the document scanning/input system can be produced as a single unit or may be made up of several independent systems connected together.

The document communication system (transmitter) **30** and document communication system (receiver) **50** are comprised of similar equipment, such that both a transmitting device and a sending device will include a compatible software to interface with one another through transmission protocols such as TCP/IP, or any other transmission protocols. This communications equipment can be a stand alone system or can be provided as part of an integrated package with the document scanning or input system **20**. The preferred packaging would be to use separate systems so that the communication systems could be upgraded or changed as technology and the trucking company requirements change. Examples of communication systems that could easily be used to transmit a signal which contains the information from the bill of lading are the following broad categories: analogue telephones; digital telephones; high frequency (HF), very high frequency (VHF), or ultra-high frequency (UHF) radio transmitters; cellular telephone; or satellite communication systems. The distance over which the communications link **40** must be reliable will determine which communication system is selected by a specific user. For short distances (line of sight), cellular telephone and VHF/UHF radio links are preferred. Medium distance transmission (line of sight to 100 miles) would typically use cellular telephones if available or HF radio links. HF radio is the least preferred communication system due to signal propagation problems. Long distance communications could use cellular telephone if available or satellite communication systems.

The use of standard or plain old telephone systems (POTS) communication circuits could be accessed using an

A147

US 6,401,078 B1

5

acoustic coupler and a modem so that a standard telephone handset could be utilized. If it is not necessary to utilize a standard telephone handset, then just a modem with a direct connection to the telephone system would be utilized. To utilize any of the HF, VHF or UHF radio systems, a radio frequency modem would be required to be a part of the communication or communication system **50**. To use cellular technology in either an analogue cellular phone or a digital cellular phone, the appropriate cabling and modems would also be required to be part of the communication systems **30** or **50**.

There is a fairly broad spectrum of satellite communication systems presently available and a host of satellite communication systems that are being developed or implemented that could be utilized in the future. All of these systems will require the use of some type of radio transceiver and antenna assembly for communicating between the satellite and the truck. Depending upon the type of satellite communication equipment utilized, a radio frequency (RF) modem or some other interface may be required to be a part of the communication systems **30, 50** in order for the digital information generated by the document scanning/input system **20** to be converted into a radio signal for transmission to the satellite. Additionally, some trucks already use a satellite communication system to track the vehicle's location and communicate with the driver. If such a system is already installed the document scanning/input system **20** could interfere directly with the installed equipment.

Communication link **40** can comprise any system or method of transmitting the information from the communication system **30** to communication system receiver **50**. These systems and methods include: 1) standard phones lines; 2) a combination of radio and telephone circuits, as used in a cellular telephone system; 3) a direct radio circuit, which would be employed in a situation using an HF, VHF or UHF radio link; 4) a combination of VHF or UHF radio link to a satellite with a return VHF, UHF link to a ground station, the ground station would link to a central processing facility over a telephone line, alternatively the ground station and telephone line could be replaced by a second radio link directly to the central processing facility, depending on how the satellite communication system was designed to be used.

In order to maximize the efficiency of the bill of lading transmission and processing system, the electronic bill of lading, received at the central processing facility for the trucking company must be processed to extract the load planning and billing information **60**. Alternatively, the load planning information **60A** and billing information **60B** may be separately extracted. To extract this information, the electronic bill of lading received by the document communication system **50** would be processed to remove all applicable information from the electronic bill of lading and transmit the required information to either the load planner **70** or to the billing and accounting software package **90**.

One method of extracting load planning and billing information would be to interface the document communication system **50** with a standard personal computer using the appropriate modem or interface box. The electronic bill of laden would be digitized and then processed with an optical character recognition (OCR) or intelligent character recognition (ICR) software package. The character based electronic bill of lading provided by the OCR program is then used in the load planning and billing processes. The load planning information would preferably then be transmitted to the load planner over a local area network. This infor-

6

mation could be printed and/or displayed at the load planner's terminal. As an additional time saver the load planning information **60** could be transmitted to a computer running on the local area network. This computer would run a load planning software package which would do the load consolidation and planning automatically.

A second method of extracting the load planning and billing information would be for a data entry clerk to view either a paper or electronic copy of the electronic bill of lading and manually enter the appropriate data into a computer system for load planning, billing, and accounting. If a computerized load planning system was riot utilized, a paper copy of the electronic bill of lading would be printed and given to the load planner.

The billing information extracted would be transmitted or inputted into a standard billing and accounting software package which could automatically invoice the shipper so that there would be a shorter time period between picking up a load and billing the shipper. Additionally, the load planning information extracted could be transmitted or input into a load planning software package that could automatically build a shipping and loading plan to minimize partial loads and keep the shipments on time. An additional value of having the load planning and billing information automatically extracted from the electronic bill of lading is expected that fewer errors in load planning and billing would be made. In practice, this system can range from a frilly automatic, electronic, paper less system to one which relies on paper and uses the system merely as a transmission device.

FIG. **2A** is a functional block diagram of a document scanning transmission device **20** using a personal computer and a scanner. Furthermore, a document communications system **30** includes a modem for transmission. Alternatively, a document scanning transmission device **20** could be created by utilizing a PDA as shown in FIG. **2B**.

FIG. **3** is a flow diagram depicting a method of transmitting shipping documentation enabling dynamic load planning in accordance with the present invention. Shipping documentation is often received in paper form by the driver of a truck from a customer at the time of pickup or otherwise while the driver is delivering his/her cargo. The documentation is generally associated with a package or item to be delivered given to the driver by a customer (or completed by the driver at the time of pickup). This documentation may be supplemented by the driver with remarks, weather conditions, corrections, additional details, and otherwise updated en route as applicable. Typically, such shipping documentation includes bills of lading, and the documentation may be one to several pages in length for each package or item to be separately delivered. The term "package" will be used herein to connote any item or cargo to be shipped. Preferably, a driver will have a number of unique bar coded self adhesive stickers and each unique bar code will be replicated on two identical stickers. The driver will place one of these stickers on the package or item provided by the customer and another corresponding sticker will be placed in the upper-right-hand corner of the first page of the shipping documentation. These bar codes are preferably encoded in a machine readable format and are marked in a structured manner such that a bar code reader equipped with compatible software can readily identify information from the bar code, such as, the identification of the truck driver receiving the package, date of receipt, general location of receipt, identification of the truck, route information, or the like.

Having identified the package and the documentation, the driver loads the package onto his truck in step **100** and scans

A148

US 6,401,078 B1

7

an image of the documentation received creating an electronic representation of the documentation. This digital representation of the documentation is then transferred to an image processor where the image is prepared for transmission in step **110**. Many commercially available scanning devices are capable of creating an image of the documentation and capable of interfacing to a computing device such as a palm-top computer. In this exemplary embodiment, the palm-top computer includes an image processor which includes software logic capable of compressing the image into a smaller memory space. Compression techniques are well known in the art and any appropriate compression technique would be sufficient. The image processor also interfaces with a transmission device such as a cellular modem, wireless modem, and the like.

Prior to sending the compressed documentation, the software logic will preferrably break the documentation into smaller units, or packets. These packets will generally be numbered and the total number of packets recorded as part of the processing. This will permit the computing device used by the driver, to reliably transmit to a remote processing center's computing device. Busting the documentation into smaller packets, which are then sent in Step **110**, will also decrease the expense associated with transmitting the documentation should an error in transmission occur, such as loss of communication with a cell tower after 50% of the documentation was sent. Particularly, if an error is encountered, both the computing device used by the driver and the remote processing's computing device will know what packets have been received and what still needs to be received by the remote processor. Initially, the transmission device of the driver's computing device makes contact with the remote processing center's computing device and transmits the total number of packets which are to be sent. As each packet is received, the packet's number is recorded by both the receiving computing device and the sending computing device. With this information, error recovery with failed transmissions can be readily resolved.

Once the documentation is successfully received (step **150**) at the selected remote processing site, the packets are ordered correctly and concatenated together to reform the document (or documents) sent, which is then decompressed. The decompressed documentation is stored on the remote processing center's computing device in step **160**.

Thereafter, load plans for a destination, which may include interim and final destinations for a package, can be dynamically preformatted and manipulated by using a computing device to request from the remote processing center's computing device an advance loading manifest. Advance loading manifests, are documents generated by the load planning software discussed above. These documents provide instructions to workers at a destination, informing the workers that a particular package or item needs to be placed on a particular truck for further shipment at a particular time. Since, the load planning software is receiving documentation regarding the packages dynamically throughout delivery day, whenever the load planning software is requested to generate an advance loading manifest, the loading efficiency of the trucks is fully maximized, at that point in time. As will be understood, the inventive system enables dynamic routing of items and packages as they are en route. Optimization of transportation resources and delivery times can thereby be accomplished on a dynamic and real time basis, and shipments can be redirected to accommodate changing conditions and needs of customers, vehicles and extraneous factors (e.g., weather and traffic).

When an advance loading manifest is requested, the remote processing center's computing device, utilizing a

8

software logic, will programmatically request an extract (step **180**) of all documentation relevant to generating an advance loading manifest for a requesting destination. These sets of documentation are pulled from the computing device's storage in step **170** and compared. In step **190**, the relevant information contained in these sets of documentation such as package weight, package dimension, package destination, package delivery requirements, package current location, etc. are fed to the load planning software to produce one or more advance loading manifests.

The generated advance loading manifest is then transmitted by the remote processing center's computing device to the requesting destination (e.g., steps **210**, **220**, and **230**). While it is contemplated that a single remote processing center for at least selected geographic regions, it should be understood that the processing center could also be located at a destination or interim destination, and that any number of processing centers might be utilized to service any particular geographic region. Reception of the advance loading manifest at the requesting destination may be by any acceptable electronic means such as facsimile, hand held computing devices, email, electronic bulletin boards, or direct transmission to the requesting destination's computing devices such as on a network. The requesting destinations may then view and use the generated advance loading manifests (or alternatively access the data to generate their own manifests) to optimize truck loading in steps **240**, **250**, and **260**.

FIG. **4** is a flow diagram depicting an exemplary method of processing an image in accordance herewith. This image might be shipping data in the form of documentation provided by a customer to a driver and associated with a customer's package. It may also include comments, remarks, details, error notations, and corrections which are electronically communicated by the driver and associated with the image. The driver may add this additional data to be associated with the image, through any electronic input device interfaced to a computing device or by writing the additional data on the customer's documentation. This may be accomplished by following instructions (generated from a software program developed to obtain standard comments from the driver) on a computer screen and selecting options with an attached mouse; using a keyboard to type additional data; using a wand to write in the information on a PDA; using a pen to make notations on the documentation which will then be scanned in with the documentation; speaking into an input device interfaced to a computing device and capable of performing voice recognition operations; and transferring the additional data from one computing device to another such as using infrared transmission from a driver's PDA to the driver's main computing device.

Once the customer documentation and package are received at a pickup point, the items are labeled with bar coded stickers as discussed above with FIG. **3**. Next, the driver may add additional information to the documentation itself or through the driver's computing device. The documentation is then scanned into the driver's computing device in step **270**. An electronic image is created of the documentation which includes any driver added information. This image is then compressed in step **280**, and preferably divided into smaller units or packets in step **290**. Each packet is then sent in step **300**, and if a remote processor indicates a packet was not received properly in step **320**, the packet in question is resent in step **300** until successful completion.

Simultaneously, the driver's main computing device is preferrably capable of recording or receiving information

A149

US 6,401,078 B1

9

about the transportation vehicle in step 420. This information might include, mechanical performance of the vehicle (e.g., engine temperature, oil pressure, fluid levels, tire pressure, and the like), location of the vehicle, weather conditions, speed of travel, direction of travel, and the like. This vehicle information is sent to the remote processor in step 430.

Steps 270, 280, 290, 300, 420, and 430 all occur while the driver is on board the transportation vehicle or while the truck is in transit. While the scanning step (270) may be undertaken prior to departing a pickup location (e.g., where there is only a single driver), this step might preferrably be performed while en route by using an automatic feed/ scanning arrangement, or where another person on board can complete the scans en route. The phrase "on board" is intended to connote the fact that the equipment will travel with the driver and vehicle, and is not limited to any particular location. Therefore, the driver could transmit customer documentation or vehicle information from a PDA or device that can be carried with him outside of the truck cab, or could use the equipment to scan and transmit from physically being in the vehicle itself. Moreover, sending the customer documentation and vehicle information can occur while the driver is actually driving the transportation vehicle, as mentioned. Once all information is stored electronically, preferably no further actions are required by the driver to ensure the information is sent to the remote processor, since this can all be coordinated with executable instructions residing on the driver's computing device and the remote processor's computing device. This frees the driver to continue with his deliveries with minimal interruption and delay, and requires very minimal training of the driver.

The remote processor initially validates that all packets are received in step 310. If packets are not fully received, the sending transportation vehicle to will resend a missing packet in step 320. Once all packets are received, they are assembled in the appropriate order in step 350 and decompressed in step 360. Based on the bar coded label associated with the documentation, the documentation may be routed to different work processing queues. Work processing queues are electronic locations where certain operations are to be performed based upon the receipt of the documentation; For example, the loading information contained in the documentation may be electronically transmitted to another remote location so that the image of the documentation may be manually keyed into an electronic text format for use in load planning software discussed above. Moreover, billing information may be manually keyed into a software billing system.

The work processing queues need not be local to the processor sending the documentation. In this way, the documentation may be routed to work processing queues any where in the world, where for instance labor is less expensive and more abundant. For example, the documentation may be routed to India, China, Indonesia, or the Philippines so that the documentation can be manually keyed at a lower cost. Furthermore, this routing to different time zones permits documentation to be processed 24 hours a day, since many of the recited countries above are working while much of the United States sleeps.

Alternatively, image data which is well fielded or structured may have the loading data programmatically extracted out of the image in step 370 and then inputted to a load planning software for generation of an advance loading manifest in step 390. Finally, in step 400 the generated advanced loading manifest can be directed to remote destinations upon request.

10

Moreover, as one skilled in the art will appreciate the load planning software need not reside exclusively on the remote processor, this software may reside on the computing device or devices of the remote facilities themselves. In these situations, the documentation may initially route through the remote processor but, the processing of the documentation and the generation of the advance loading manifest could occur at the requesting remote facility. Furthermore, if a particular set of documentation is rerouted to a new facility, it may be recalled from the remote facility's computing device by the remote processor and routed to the new facility appropriately. In this way, the remote facility provides a central dynamic routing of the documentation yet, the processing of the documentation occurs when and where it is need ed.

FIG. 5 a diagram depicting an exemplary image processing by a remote processor such as a central processing system. In step 450 an image is received by the remote processor and based on its bar code routed in step 460 to multiple work queue locations 510 and 520. The image is also sorted for storage when received on the remote processor in step 470. The image is classified in step 480. Classification of the image is preferred so that the image received can be associated with other images which are relevant to a particular destination or a particular searchable characteistic (e.g. type of item, model of product, and the like). For example, if transportation vehicles 1 and 2 each receive documentation pertaining to packages received while the drivers are performing deliveries, and both vehicle 1 and vehicle 2 are arriving at a loading/unloading destin ation, the images from each of these transportation vehicles would be associated together by a classification means. In a common scenario, this classification means might uses the bar code on the images to identify the tracks sending the images and then to store the images in a directory associated with the destination of these two transportation vehicles. The items or packages might also be classified as to the type of product, color, model number, etc., so that an individual item could be identified and (for example) redirected to an alternate destination while en route. Once the loading information from these images are appropriately extracted or manually keyed from these images, the inform ation is passed to a load planning software package for generation of an advance loading manifest.

Moreover, a received image (e.g. as in FIG. 5) maybe programmatically enhanced by commercially available software, such as InputAccel, to provide for better image quality or resolution by performing operations such as despeckling, cropping, and improving image brightness. Improved image quality will permit more accurate automatic processing and/or manual keying of the information included on the image. Furthermore, the image may have an OCR process (step 500) performed on it permitting automatic generation of electronic text associated with the image. This electronic text could then be programmatically inputted to a load planning software for generating advance loading manifests.

InputAccel also performs work flow processing of the image by monitoring directories contained on the computing device and identifying images when the images become available in the directories. For example, types of images can be identified by the image file name extension and automatic operations can be performed on the images based on the directory in which they appear and their file names. In this way, the images are programmatically processed upon receipt by the remote processor and the load planning information associated therewith is dynamically available

A150

US 6,401,078 B1

<table>
<tr><td>11</td><td>12</td></tr>
</table>

when an advance loading manifest is requested. This automation reduces the amount of personnel required to process loading documentation, reduces errors associated with manual processing, and substantially increases the efficiency of generating advance loading manifest.

FIG. **6** illustrates a schematic example of a device capable of scanning and transmitting an image to a remote processor in accordance with the present invention. Although FIG. **6** depicts a diagram as a single device, as one skilled in the art will appreciate, this arrangement need not be a single device but could be several devices which interface together to form a logical device depicted in FIG. **6**. FIG. **6** depicts a field device **530** referred to as a mobile data transmission device ("MDT"). The MDT **530** has a processor **550** which includes a memory **560** and set of executable instructions residing on the processor **560** capable of receiving transportation documentation in **570** from an input device **600** which is interfaced to the processor **550**. This input device **600** might preferably include a scanner which electronically converts transportation documentation into an electronic image. However, if the transportation document is already in image form and contained on a separate device such as a PDA, the input device could be an infrared transmission port which is capable of receiving the image from a device such as a PDA. After receipt of the image, the image is stored in the memory **560** and prepared for transmission in **580**. Preparation for transmission includes establishing a communication with the transmission/receiving device **620**, and, preferably, compressing the image. The transmission device **620** will then electronically send the image to a remote processor **640** by establishing a connection with the remote processor's **640** transmission/reception device **660**.

Furthermore, the MDT **530** may include a global positioning satellite ("GPS") device **610** interfaced to the processor **550** for relaying location information to the remote processor's **640** GPS **650**. Moreover, vehicle information **630** associated with the MDT **530** is communicated to the processor **550** and transmitted to the remote processor **640**. Vehicle information can include any of a variety of performance, diagnostic, and status information as discussed above with FIG. **3** and is useful in creating better real time communication and planning of shipping manifests and loading and delivery schedules. The GPS will provide location information of the transportation vehicle (and the items and packages) and directions to the driver of the transportation vehicle. Additionally, the MDT **530** may contain a Radio Frequency Identification (RFID) tag, such that the MDT **530** can be continuously located with wireless transmission.

The MDT **530** may be built into the transportation vehicle itself, or it may be a separate device which can be removed from the transportation vehicle with or separate from the balance of the processing system. FIG. **6** depicts a securing device **540** which permit a removable MDT **530** to be attached to the transportation vehicle during transit, this may include an electronic connection similar to laptop computer docking stations, and would permit the MDT **530** to receive power. Power to the MDT may be supplied through a battery source, and can be connected to the transportation vehicle's battery utilizing the securing device **540**.

The MDT's **530** transmission/receiving device **620** establishes a communication with a remote processor's **640** transmission/receiving device **660**. Once this communication is established, the MDT **530** may transmit transportation documentation, vehicle information, and/or location information. Moreover, the MDT **530** may receive information from the remote processor **640**, such as requests to resend parts of the transportation documentation not successfully received by the remote processor **640**, or for location updates and/or other vehicle information. Further, the remote processor may send electronic instructions to the driver via the MDT **530** utilizing the MDT's **530** GPS **610**. Information received by the MDT **530** is processed in **590** by the MOT's **530** processor **550**. Once received information is in a format understandable to the processor **550**, it is available for use by the processor **550** and may be communicated to the driver if necessary, through a user display screen, paper print out, or by audio device. For example, additional pickups or rerouting instructions for one or more items to be delivered might be sent to allow redirecting of one or more items en route.

Transportation documentation sent by the MDT **530** is preferably received by the remote processor **640**. A set of executable instructions residing on the remote processor **640** initially receives the transportation documentation in **680**. If errors **690** are detected, a send **700** request is initiated causing an instruction to be sent from the remote processor's **640** transmission/receiving device **660** to the MDT's **530** transmission/receiving device **620**. This instruction informs the MDT of the exact parts of the transportation document which need to be resent. Preferably, no driver intervention or action is required to effectuate the resending of the transportation documentation.

Once the remote processor **640** successfully receives a set of transportation documents, it may be electronically routed to perform a variety of operations such as classification **710**, extracting **720** (loading or billing information), and enhancements **730** (e.g., improving image quality by varying brightness), and, of course, load planning and shipping manifests.

Whenever a request is made of the remote processor **640** for an advance loading manifest, the request will route to load planning software where an advance loading manifest **740** is produced for further electronic transmission or hardcopy output.

FIG. **7** is a schematic illustration of an exemplary remote processor **750** for dynamically generating advance loading manifests. FIG. **7** also depicts the overall process of the present invention. The remote processor **750** includes a set of executable instructions permitting it to interface with one or more remote facilities' (e.g. **760**) computing device and a truck's (e.g. truck **770**) computing device through a software communication layer **780**. This software communication layer **780** might preferably include standard protocols available in the art which permit computing devices to interface with one another such as TCP/IP.

Initially, transportation documents are sent from the truck **770** (e.g. as shown at block **900**) via communication layer **780**. The remote processor **750** receives the documents in **830** and proceeds to route the documents in block **840** and store them to the memory of the processor in block **790**. Routing the documents in this way can permit additional operations to occur on the documents such as manual keying, OCR, classification, and image enhancements. As previously discussed, commercially available software such as InputAccel provides this automated routing and operation execution on the received documentation. Moreover, as one skilled in the art will appreciate, information regarding the contents of the document could also be stored in a database and the contents of that database made available to the remote facilities and trucks on demand.

Throughout the actual pickup/delivery travel of the truck **770**, an estimated time of arrival ("ETA") can be commu-

US 6,401,078 B1

13

nicated from the truck **770** to the remote facility **760** via the communication layer **780**. The remote facility **760** receives the ETA in **860** and makes a determination at some point to request a loading manifest **850** from the remote processor **750** via the communication layer **780**. Alternatively, such ETA can be determined by the remote processor as a result of updated vehicle information received from the truck **770**. The remote processor receives this request of the remote facility **760** in block **810** and causes an extraction of all the relevant load planning documents from the remote processor's **750** memory **790** in block **800**. This extracted load planning data is fed to a load planning software causing an advance loading manifest to be generated in block **820**. Once the advance loading manifest is generated, it is sent to the requesting remote facility **760** in block **870** via the communication layer and used in **880** to load and unload (as appropriate) the arriving truck **770**.

As one skilled in the art will appreciate, the ability to bi-directionally and dynamically communicate with transportation vehicles and to remotely process transportation documentation, tremendously optimizes the performance of the transportation business, as well as allowing more freedom and control in optimizing delivery times and costs for products. Although specific examples and descriptions have been expressed as they might relate to the less-than-a-load freight business, the usefulness of the present invention is not intended to be limited thereto. Full load shipments of products might also be improved where redirection of the vehicle and/or portions of the load en route may be desirable to respond to customer needs or other factors.

The foregoing description of the preferred embodiment of the invention has been presented for purposes of illustration and description. It is not intended to be exhaustive nor to limit the invention to the precise form disclosed. Many alternatives, modifications, and variations will be apparent to those skilled in the art in light of the above teaching. Accordingly, this invention is intended to embrace all alternatives, modifications, and variations that fall within the spirit and broad scope of the amended claims.

What is claimed is:

1. A method for transferring shipping documentation data for a package from a transporting vehicle to a remote processing center:

placing a package on the transporting vehicle;

using a portable document scanner to scan an image of the documentation data for the package, said image including shipping details of the package;

14

providing a portable image processor capable of wirelessly transferring the image from the transporting vehicle;

wirelessly sending the image to a remote processing center;

receiving the image at said remote processing center; and

prior to the package being removed from the transporting vehicle, utilizing said documentation data at said remote processing center to prepare a loading manifest which includes said package for further transport of the package on another transporting vehicle.

2. The method of claim **1**, further comprising the step of comparing and combining the documentation data received at said remote processing center with similar shipping documentation data of other packages to be delivered from an interim destination and other shipping data, and preparing loading manifests to optimize the loads to be shipped on at least one other transporting vehicle.

3. The method of claim **1**, wherein the image sending step is accomplished from onboard the transporting vehicle.

4. The method of claim **3**, wherein the image sending step can be undertaken while the transporting vehicle is in transit.

5. The method of claim **4**, further comprising the step of dynamically updating the documentation data sent while the transportation vehicle is in transit to provide more current data on the shipping status of the package.

6. The method of claim **1**, further comprising the step of routing certain portions of the shipping documentation data received at said remote processing center to an interim destination of said package for utilization in loading manifests.

7. The method of claim **1**, further comprising the step of sending vehicle information to said remote processing center at one or more times as said transporting vehicle is en route to a destination.

8. The method of claim **6**, wherein said vehicle information includes location data about said transportation vehicle for use in determining loads to be shipped on at least one other transportation vehicle to be loaded at an interim destination.

9. The method of claim **6**, wherein the method further comprises receiving instructions on board said transportation vehicle for altering the routing of a package on said transportation vehicle en route.

* * * * *

A152

United States Court of Appeals
for the Federal Circuit

R&L Carriers, Inc. v Qualcomm, Inc., No. 2014-1718

CERTIFICATE OF SERVICE

I, Robyn Cocho, being duly sworn according to law and being over the age of 18, upon my oath depose and say that on **October 20, 2014,** counsel authorized me to electronically file the foregoing **Brief for Plaintiff-Appellant (corrected)** with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to any of the following counsel registered as CM/ECF users:

Jonathan S. Franklin
(Principal Counsel)
Fulbright & Jaworski LLP
801 Pennsylvania Avenue, NW
Washington, DC 20004
(202) 662-0466
jonathan.franklin@nortonrosefulbright.com

Sheila Kadura
Fulbright & Jaworski LLP
98 San Jacinto Blvd., Suite 1100
Austin, TX 78701
(512) 474-5201
sheila.kadura@nortonrosefulbright.com

J. Derek Vandenburgh
Douglas J. Williams
Carlson, Caspers, Vandenburgh,
Lindquist & Schuman, P.A.
225 South Sixth Street, Suite 4200
Minneapolis, MN 55402
(612) 436-9600
dvandenburgh@carlsoncaspers.com
dwilliams@carlsoncaspers.com

Richard S. Zembek
Fulbright & Jaworski LLP
Fulbright Tower
1301 McKinney, Suite 5100
Houston, TX 77010
(713) 651-5151
richard.zembek@nortonrosefulbright.com

Paper copies will also be mailed to the above principal counsel at the time paper copies are sent to the Court.

Upon acceptance by the Court of the e-filed document, six paper copies will be filed with the Court, via Federal Express, within the time provided in the Court's rules.

The brief was originally filed on October 14, 2014.

October 20, 2014   /s/Robyn Cocho
                                                   Robyn Cocho
                                                   Counsel Press

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS

1.   This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) or Federal Rule of Appellate Procedure 28.1(e).

☑   The brief contains 11,129 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii),

2.   This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) or Federal Rule of Appellate Procedure 28.1(e) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6).

☑   The brief has been prepared in a proportionally spaced typeface using Microsoft Word 2007 in 14 Point Font, Times New Roman.

                                                    /s/ Anthony C. White
                                            Anthony C. White